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NATIONAL EXPERIENCE IN THE FORMULATION AND IMPLEMENTATION OF POPULATION POLICY, 1960-1976

MADAGASCAR

UNITED NATIONS

PREFACE

Since the World Population Conference was held under the auspices of the United Nations in 1974 there has been growing interest among policy makers in the complex interrelationships between population and development, with the area of population policy being one of increasing concern.

The following study is one of a series of reports prepared during 1975 and 1976 by the Population Division of the Department of International Economic and Social Affairs of the United Nations Secretariat in an attempt to disseminate information among interested Governments and scholars on the experience of various Governments in formulating and implementing population policies. It is intended that the series, when completed, will include all countries in the world and will examine the variety of situations and solutions adopted by Governments, which have often been determined by particular historical, political, socio-economic or cultural circumstances. The information included in the series would be useful to the national bodies assisting Governments in the area of population and related fields, as well as to the international organizations which are attempting to increase the knowledge of ways in which Governments may most effectively resolve problems associated with population.

Although the reports have been prepared with all possible care, there may possibly be errors or omissions. Comments or corrections from Governments would be appreciated.

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INTRODUCTORY NOTE

Although the first comprehensive population census was taken in Madagascar only in 1975, successive Governments since independence in 1960 have given substantial attention to the relationships between demographic and socio-economic processes and have accordingly undertaken many analyses of available information. Each Government has formulated carefully considered population policies which it then attempted to integrate into its development strategies. In certain instances these policies have included an explicit decision not to intervene to adjust demographic trends, while in other instances a decision to intervene energetically to modify certain trends has been adopted. The experience of Madagascar is illustrative of the problems faced in the effective formulation and, particularly, in the effective implementation of population policies in those developing countries whose population is still afflicted by high levels of morbidity and mortality and which have been severely handicapped by global economic conditions.

Because of a significant change in the orientation of development strategy and, accordingly, of population policy at the time of the change in Government which occurred in 1972, this study has been divided into two sections, the first dealing with the period 1960-1972, the second dealing with that of 1972-1976.

I. THE PERIOD 1960-1972

The political and economic situation

Madagascar achieved independence in 1960 under the presidency of P. Tsiranana, leader of the Social Democratic Party. The party had been formed in 1957, after the French loi cadre of 1956 had prepared the way for greater political autonomy, achieved in 1958 when P. Tsiranana assumed the leadership of the new autonomous Government. The President had been a former socialist deputy in the French National Assembly and was a member of the Roman Catholic minority and one of the coastal ethnic groups. His Government maintained close relations with France, which continued to provide substantial technical assistance.

During the latter part of the 1960s the Government came to face increasing political problems, largely the result of a deteriorating economic situation. During 1969 and 1970 President Tsiranana was absent from the country because of ill health. After civil disturbances in the south-western region during April 1971, the President's political position declined, and he remained largely as a figurehead. The period of political instability ended in May 1972 when full political control passed to the Army Chief of Staff, General Ramanantsoa.

At the time of independence in 1960 the economy was characterized by a colonial dual structure of which the modern sector was almost completely under the control of French interests. During the period of the Tsiranana Government very little change was achieved, although attempts were made to expand commercial connexions to other countries, including South Africa. During the latter half of the 1960s, global economic trends and adverse conditions in France brought about a deterioration in the country's financial and economic position. As a result of the closure of the Suez Canal in 1967, in particular, and of French economic difficulties in 1968 and 1969, economic and financial conditions deteriorated to such an extent that implementation of the development plan was seriously constrained. Political instability resulted.

Development planning

Prior to the achievement of independence in 1960 considerable attention had been given by the French administration to development planning, although this had been concerned primarily with the provision of economic and social infrastructure. The 10-Year Monet Plan, drawn up in 1946-47, had been revised in 1948 and then superseded by a series of four-year plans, the third of which, for the period 1958-1962, had been formulated during the period of political transition after the 1956 promulgation of the loi cadre and the August 1958 establishment of political autonomy as the Republic of Madagascar. In 1952 a study of the planning needs of the country had been published.

The period from August 1958 to the achievement of full political independence in August 1960, and thereafter until the presentation of a first five-year plan in 1964, was characterized by very active policy formulation and plan preparation, involving substantial interaction between an increased French technical planning staff and the new Tsiranana Government. In 1959 the French agronomist, R. Dumont, prepared a study of the agricultural sector. In October 1959 the Government adopted its three-year plan of 1959-1962, which had been prepared by means of substantial revision of the third of the French plans.

Between September 1959 and April 1960 an economic studies group was established under the President to consider the formulation of development policy, and in May 1960 a draft programme for carrying out the three-year plan during 1960 was completed, largely with French technical planning assistance, and adopted by the Tsiranana Government.

In August 1960 the General Planning Commission (Commissariat général du Plan) was established, replacing the former Investment and Planning Office (Bureau des investissement et du Plan) and having the function of providing the technical input to policy formulation and plan preparation, with advice from the Higher Council (Conseil supérieur) which had overall policy formulating functions under the chairmanship of President Tsiranana. The Commissariat général du Plan immediately undertook studies as an input to development policy formulation. Already in 1960 the Bureau des investissements et du Plan had presented a study of the economic evolution of the country prior to and during 1958. Work then began on a thorough examination of all aspects of the developmental situation, the result being intended to provide a major input to the formulation of policy and to the preparation of a comprehensive development plan. At the beginning of 1961 a programme of preliminary studies was completed and presented to the Government, and in June 1962 a final report on the evolution of the national economy from 1950 to 1960 was published after its submission to the Government and after its use in a conference on development planning held during April and May 1962 which brought together government officials, technical assistance experts and a number of specialists. During this period a number of other reports were submitted to the Government by French technical assistance agencies, and the French Government published a number of studies of development problems and proposed policies.

In October 1962 the Commissariat général du Plan submitted a synthesis of its preliminary conclusions with respect to development for discussion by the Government prior to the detailed preparation of the development plan, which was then intended to be for the five-year period from 1963 to 1967, within a 10-year perspective to 1972. After a further period of activity in policy formulation and plan preparation, the first five-year plan for the period 1964-1968, with a 10-year perspective to 1973, was prepared, and adopted in June 1964.

During the last two years of implementation of the five-year plan (that is, 1966-1968), and for the remainder of the period of the Tsiranana Government, economic conditions deteriorated considerably as a

result of the closure of the Suez Canal, French economic difficulties, and global economic trends. Although implementation of the five-year plan itself was subsequently reported to have been relatively adequate, the plan itself was criticized as having given insufficient attention to the identification of a co-ordinated set of specific projects, and as having concentrated on infrastructural rather than upon productive projects. Moreover, it was pointed out that the colonial economic structures had been scarcely changed; in its development plan of 1974-1977 the following Government stated in 1974 that they still existed in the original form. The Government attempted to remedy the fact that by 1967 investment and production were below target levels by launching an interim major operations programme (Programme de grandes opérations) for 1968-1969.

On the basis of its experience with preparation and implementation of the first five-year plan the Government undertook organizational changes in the planning institutions and changed its approach in preparing a second five-year plan, giving greater emphasis to the identification of specific projects for investment. In April 1971 another national conference on development planning was held with the themes of socialism and development, nationalization of the economy, popular participation in development and economic independence. In October 1971 a National Planning Council with an advisory function was established under the chairmanship of the President. It included representatives of all sectors, public and private. In December 1971 a new Development Charter (Charte de développement), which set out the major developmental objectives of the Government, was adopted. At that time, preparatory work for a second five-year plan was still proceeding, delays in its completion being caused by the Government's desire to achieve a comprehensive listing of detailed projects prepared by each of the responsible ministries. These improvements took place during the period from May 1971 to May 1972 during which President Tsiranana's position had been reduced to that of a figurehead. When in May 1972 he handed over full powers to General Ramanantsoa, the second five-year plan had not yet been approved.

General policy with regard to the demographic situation and trends

Institutional organization for the formulation of population policy was generally effective during the period, in spite of the separation of the statistical agency from the planning services.

The Service de statistique--renamed the Service de la statistique et des études socio-économiques after 1962 and the Institut national de la statistique et de la recherche économique (INSRE) after 1964--was within the Ministère des finances et du commerce. INSRE was responsible for all the programmes of data collection, as well as much secondary analysis, during the period 1964-1972. The Ministère de la santé et de la population was responsible for the collection and publication of health and vital statistics. From its establishment in 1960 the Commissariat général du Plan was responsible for the preparation of comprehensive regional and sectoral studies for policy formulation and plan preparation.

Because of the Government's adoption of a population policy whose objective was the acceleration of natural increase by means of a more rapid decline in mortality, executive responsibility for the implementation of population policy was allocated to the Ministère de la santé publique et de la population, whose title was expressive of the nature of the Government's concerns. This Ministry had been reorganized in 1960. In August 1965 its functions were absorbed into a newly created Ministry of Social Affairs, the responsible minister being also Vice-President of the Republic.

During the period of French administration to 1958 interest in the relationship between demographic processes and economic and social development had occupied a position of central importance within consideration of development policy and in 1952 the French Institut national d'études démographiques (INED) published a comprehensive monograph on the topic. This was true notably with respect to concern that a sufficient labour force be provided within those regions in which were located activities of the modern sector, without damage to the basic subsistence sector. Competition for labour between the private French monopolies, the administration with respect to its need for labour for public works, and the administration with respect to its role as protector of the interests of the population occupied a significant place in the country's economic and political evolution during the colonial period.

As will be explained in this and succeeding sections, as part of the intense activity associated with preparation of the development programmes and plans during the period 1958-1964, the relationship between demographic, economic and social processes was again placed in the forefront of research, analysis and policy formulation. The most significant demographic characteristics were perceived to be the still high levels of morbidity and mortality, the extremely uneven spatial distribution of the population and the acceleration in the formerly stagnant rate of natural increase which had followed the successful impact of health measures introduced in the late 1940s and early 1950s. Although information was known to be not yet adequate, it was considered sufficient for effective appraisal of these principal aspects. Thus the three-year plan of 1959-1962 took account of each in its analysis of the country's developmental problem and in its statement of objectives. Indeed, it stated as one of its objectives the necessity of establishing a comprehensive planning process precisely because of demographic growth and regional diversity. The report on the evolution of the economy to 1958 published in 1960 by the Bureau des investissements et du Plan gave first place in its analysis to a summary of the demographic situation. The French Government gave prominent place to consideration of the relationships between demographic factors and development in its contemporary studies of development problems and of the plans being formulated. In the preparatory work for the first five-year plan, attention was given to thorough analysis of what was known of the demographic situation and to improvement of means of data collection and analysis. French assistance was secured in the analysis of demographic information and in the publication in 1963 of the

first population projections for the plan period. The French demographer, A. Sauvy, participated in the conference on development problems and policies held during May and June 1962.

In its survey of economic development during the 1950s, published in June 1962, the Commissariat général du Plan included a separate section setting out what was known of the demographic situation. The synthesis of its preliminary conclusions with respect to development presented in October 1962 took full note of the demographic situation, and of its implications for development objectives, and the five-year plan itself fully integrated the demographic factor in its analysis of the situation and in its proposals. As will be indicated in the following section, during the period of implementation of this plan, considerable efforts were made to improve the availability and reliability of information on demographic processes, and the latest findings were regularly taken into account during the policy reformulation and plan preparation processes.

In October 1963 the Minister of Public Health and Population published in a French periodical a comprehensive statement of the country's population policy. He pointed out that the attention paid to demographic phenomena which were, he considered, not only of limited visibility but appeared to possess a certain inertia with respect to any deliberate attempt at intervention, was less than that paid to other processes, whose evolution appeared more spectacular. However, effective development required such intervention, in this instance to achieve pro-natalist objectives. He made clear the Government's close association of mortality reduction with natural increase acceleration as the basic elements of its population policy. However, the Government did not reply to the first United Nations Population Inquiry (on problems resulting from the interaction of economic development and population changes) transmitted to it in 1963.

Information on the general demographic situation and trends

During the period of French administration between 1949 and 1962, the Service de la statistique général--known as the Service de Statistique from 1955 to 1962--was principally responsible for the collection and analysis of demographic information. However, in 1960 it was reported that there were only two technical staff engaged in that Service. 1/ In 1962 the Service de la Statistique et des études socio-économiques took

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1/ "Les investissements et les problèmes de développement, dans l'économie de la République Malgache", Notes et étude; documentaires No. 2 707 (October 1960), p. 4, No. 1. However, during this early period substantial assistance was provided by the French Government, notably through its branch office of ORSTOM, and by means of conducting analyses in Paris. See "L'assistance technique de l'INSEE en Afrique noire et à Madagascar dans le domaine de la statistique", Développement et civilisations, No. 8 (October-December, 1961), pp. 73-76.

over this function, being replaced in 1964 by the Institut de la statistique et de la recherche économique. The Ministère de la santé et de la population was responsible for the collection of vital statistics information. In addition, the French Government maintained branches of its Institut national de géographie and of its Office de la recherche scientifique et technique outre-mer in Tananarive. These offices were principally concerned with Madagascar and were responsible for numerous demographic, socio-economic and geographical studies.

Prior to 1957 the sources of demographic information were limited to annual administrative enumerations and incomplete vital statistics data for the metropolitan provinces of Tananarive and Fianarantsoa. However, these sources, together with studies of local populations made by anthropologists, ethnologists and specialists engaged in the preparation of regional development plans had been used to prepare several syntheses of the demographic situation and trends published in 1952 and 1958. These were, nevertheless, reported to be insufficient for the purpose of preparing the series of development plans.

In 1957 the first demographic survey was carried out in Tananarive Province, and its preliminary results were made available in the same year, making possible, by their comparison with the available information from administrative and fragmentary sources, a first set of analyses which revealed the beginning of accelerated population growth within the metropolitan region. However, it was emphasized that information was still to be regarded as tentative.

In addition to improvements in vital statistics reporting and analysis, which permitted the preparation of indicators of fertility and mortality by age for the metropolitan provinces (Tananarive and Fianarantsoa) as early as 1971, the Service de la statistique et des études socio-économiques --after 1964, INSRE--undertook a substantial programme of data collection and analysis. During 1961 and 1962 an agricultural sample survey was undertaken which, when published in 1966, provided information on the demographic characteristics of the agricultural population. In 1962, at the request of the Commissariat général du Plan, a statistical survey was made of household budgets and nutrition among the rural population which provided for the first time a considerable body of information on the demographic situation and trends throughout the country, 86 per cent of the population being included. In 1963 available information was used in the preparation of the first published set of population projections. During the period 1962 to 1966 a series of censuses of urban centres, taken from 1959 onwards, was published.

In a progress report prepared for the Third Conference of African Statisticians held at Addis Ababa in October 1963 the Government noted that in 1963 there were only one Malagasy statistical officer and 11 technical assistance statisticians in the Service de la statistique et des études socio-économiques. At that time there was stated to be no close relationship between the statistical and the planning agencies. As the latter had

had to produce a plan very rapidly, it had not been possible to wait for the results of surveys undertaken by the statistical agency, which would need a further two to three years to be completed.

In background information provided by the Government in June 1974 as part of a request for assistance from the United Nations Fund for Population Activities (UNFPA), it was recalled that in April 1965 INSRE had reported that it was experiencing serious difficulties in attempting to reconcile demographic information obtained from different sources: that is, subprefectural enumerations, vital statistics and enumerations undertaken by its own personnel. During 1965 the Minister of Public Health and Population, who was also Vice-President of the Republic, called for a meeting of a special commission in order to organize as quickly as possible a general census. During the same year, the Minister of the Interior and a technical committee of the Interministerial Committee for Planning each called for the taking of a general census. In December INSRE prepared a report on the matter, in which it set the cost at 350 million Malagasy francs, and advised that a pilot census would have to take place during 1966 in order that a full census could be taken in 1967. The Ministry of Finance responded with serious reservations concerning the envisaged cost, and so in 1966 the Commissariat général du Plan asked INSRE to examine the possibility of undertaking a much less expensive, and consequently more rapid and limited, survey in order to obtain by the beginning of 1967 an indication of the rate of natural increase of the population.

From May to November 1966, with assistance from the French Institut national de statistique et des études économiques (INSEE), and the Office de la recherche scientifique et technique outre-mer (ORSTOM), the first nation-wide demographic survey, of a 1 in 200 sample, was taken. It was published in the following year. This material formed the basis for a number of analytical studies of the demographic situation, published in Tananarive in 1968 and 1969 and in France in 1970 and 1971, which were used in the preparation of detailed regional, sectoral and national plans. In the same year available demographic information was synthesized in a socio-economic inventory. During the last years of the period the INSRE published a regular series of reports on the demographic situation.

During 1967 several meetings of a Commission on the Population Census were held to study the experiences gained from a number of censuses of urban and rural communes taken during that year. In 1968 further local censuses were taken as trials for a full census, and in June 1968 the Commission adopted a detailed proposal prepared by INSRE to take a general census in 1969. However, for budgetary reasons this proposal was not implemented. In May 1969 the Committee for the Coordination and Development of Statistical and Economic Information again called for a general census, indicating that it should be considered a priority investment, but again budgetary considerations prevented its implementation. Accordingly, by the end of the period in question, that is, May 1972, no census had yet been taken.

During the period from 1967 to 1972 further censuses and inquiries were held in urban centres, subprefectures and rural communes. A permanent observation of demographic trends was established in one rural commune (Ambinanitelo) in 1967, and a sample survey was carried out in the Tananarive Plain in the same year. In 1969 a second socio-economic inventory was published, covering the period 1964-1968. During 1970 further improvements in vital statistics and local census enumerations were made, notably in Antsirabe.

In December 1971 the United Nations Development Programme (UNDP) reported that the lack of sufficient statistical information was seriously constraining development planning. The results of the 1966 demographic survey were reported to be considered very doubtful. Accordingly, one of the priorities was the undertaking of a new population census during 1972-1973, and for this purpose the Government had already requested assistance from UNFPA, a request then under study. However, an American Government publication, for which research had been completed in October 1972, stated that subsequent reviews of the 1966 data by survey officials and by other demographic specialists had indicated that the survey and recent official estimates based in part on survey data had been reasonably accurate.

In March 1971 INSRE, in the 1969 issue of its series of annual reports on the population situation, stated that the data published therein were based upon administrative censuses for subprefectures and was useful only as an indication of general orders of magnitude. It was said to be hazardous to draw conclusions from a comparison between them and earlier enumerations. The vital rates included were considered to be underestimated, but it was not possible to indicate the rate of underestimation. Information on international migration was obtained from the Migration Service of the Ministry of the Interior.

Size and growth of the population

Information available to the Government

The series of demographic surveys and their analyses described above furnished to the policy formulators what was considered to be an adequate general indication of levels and trends in rates of natural increase, population structure and population size during the period in question. However, in the absence of a comprehensive census, the insufficiency of information became increasingly recognized as a constraint on policy formulation. In the mid 1960s it was found that rates of natural increase had been overestimated.

Throughout the period of French administration the only sources of information for the country as a whole were administrative enumerations. Towards the end of this period, in a report presented in 1957 to the French Haut comité consultatif de la population et de la famille, it was stated that deficient information made the calculation of current total

population difficult. It was considered probable that one half of the apparent increase in population between 1925 and 1955 was the result not of a real increase but of an improvement in methods of enumeration and estimation. On the basis of available information it was suggested that the total population in 1925 had been between 4.34 million and 5.35 million, the total in 1955 had been between 5.04 million and 6.09 million, the total increase had been 700,000 and hence the annual rate of natural increase during the period had been between 0.4 and 0.5 per cent. By 1965, taking the 1955 estimate as 6.09 million, an average annual increase of 2 per cent would result in a total of 7.42 million, and a rate of 1 per cent would result in a total of 6.73 million. These rates, applied to a 1955 total of only 5.04 million, would result in 1965 totals of 6.14 million and 5.57 million, respectively. There was clearly a very wide range among possible totals for 1965--between 5.57 million and 7.42 million.

At the time the three-year plan of 1959-1962 was being prepared and implemented and during the initial post-independence period, when development problems were being examined in preparation for the first five-year plan, sources of information concerning the total size and structure of the population and rates of natural increase were limited to the series of administrative enumerations and the vital statistics for Tananarive and Fianarantsoa Provinces, supplemented by a demographic survey of the former, undertaken in 1957. The available information was analysed by the Service de statistique with substantial assistance from the French INSEE and INED.

Administrative enumerations during the period before 1950 had indicated an average annual rate of natural increase of 1 per cent, for 1950-1955 a rate of 1.9 per cent and from 1955 to 1960 a rate of 2.6 per cent. It was assumed at that time that the rapid acceleration reflected substantial declines in mortality following public health measures introduced in the late 1940s. It appeared that in 1959 or early 1960 certain agencies of the Government considered that the rate of natural increase was at least 2.5 per cent. 2/ However, the Service de statistique adopted a lower rate, and immediately prior to the achievement of independence it reported an annual rate of natural increase of 2 per cent as of 1 January 1958. 3/ In the draft programme for carrying out the three-year plan of 1959-1962 during 1960 the rate of natural increase was stated to be over 2.1 per cent. A French study of the economy published by the Institut des hautes études in 1960 reported that during the previous decade the rate of natural increase had exceeded 2 per cent, growing from 4.1 million to 4.975

2/ "Les investissements et les problèmes de développement...", pp. 36-40. The source noted was "Rapport d'exercise du Plan de développement économique et social et de la note du contrôle financier de Madagascar, publié au 'Bulletin de Madagascar'", p. 37, note 1.

3/ Population de Madagascar au ler janvier 1958 (Tananarive, Service de statistique, 1959), referred to in R. Gendarme, op. cit., p. 84.

million between 1947 and 1957, a rate which would result, if continued, in a total for 1976 of 8.4 million. The Commissariat général du Plan, in its survey of economic development during the period 1950-1960, published in June 1962, concluded that the average annual rate of natural increase for that decade had been 2.3 per cent (an accumulated rate of 26 per cent for the period), and that the probable current evolution of the rate was towards 2.5 per cent. These estimates were repeated in the synthesis of conclusions and recommendations on the current development situation and its solution published by the Commissariat général du Plan in October of the same year.

In a number of French government publications during the period 1960-1962 it was suggested that rates might be even higher. Thus in 1960 it was stated that for several years since 1950 a rate higher than 2 per cent had occurred, and in another publication of the same year it was stated that the current rate was 2.5 per cent. In 1962 the French Ministère de la coopération reported in a study of the economy and development planning that a rate of 2.5 per cent had been reached in 1959, and that in Tananarive Province, the first to have been affected by mortality decline, it had already reached 3.2 per cent. In 1962 the French demographer, A. Sauvy, who had attended the conference on development which took place in Tananarive in April and May of that year, reported an average annual rate of 2.6 per cent during the period 1952-1962, a rate which he considered to be accelerating, and possibly already to have reached over 3.0 per cent.

The first estimate derived from an actual survey was published in 1963. It was obtained from the sample survey of the budgets and nutrition of rural households undertaken in 1962 by INSRE with the assistance of the French INSEE. The survey explicitly included demographic questions in order to clarify the situation with respect to natural increase. The Government noted that the total population in that year was 5.75 million, of which 4.95 million (85 per cent) were resident in rural areas. Presumably, these totals were derived from adjustments extrapolated from administrative enumerations of sample areas. On the basis of the demographic findings of the survey itself, the rate of natural increase of the rural 85 per cent of the population was reported to be 2.4 per cent on the basis of the difference between reported crude birth and crude death rates and 2.6 per cent on the basis of the gross reproduction rate. Thus, a rate of 2.5 per cent was regarded as an acceptable compromise between these two indicators. The proportion of the total rural population under the age of 15 years was found to be 45.4 per cent. Probably as a result of this report the Commissariat général du Plan thereafter adopted a slightly lower rate than previously suggested by A. Sauvy and the Service de la statistique.

In the same year the Service de la statistique et des études socio-économiques used the available information to prepare the first set of official national population estimates and projections. These were used as the basis for an analysis of the country's population problems and policy, contained in a statement made by the Minister of Public Health and Population and published in October 1963.

In this statement the Minister noted that, at a time when the Government was preoccupied with economic planning, it was of the greatest importance to know the trend in population size, since it affected, directly or indirectly, most of the nation's economic and social activities. It was in order to satisfy this need that the Service de la statistique et des études socio-économiques had undertaken their study of demographic perspectives. On this basis, and adopting as apparently most reasonable the hypothesis of a declining mortality and slightly declining fertility, it was possible to predict growth from 5.525 million in 1960 to 7.05 million in 1970, and to 15.425 million in 2000. The 1963 total was stated to be 5.65 million. The rate of natural increase in 1960 was 2.5 per cent, declining to 2.4 per cent in 2000.

In a summary of the demographic situation published in 1964 the Director of the Service de la statistique et des études socio-économiques noted the average of 2.3 per cent for the 1950s previously reported but indicated a current rate of 2.6 per cent, presumably by extrapolation of the 1960 rate of 2.5 per cent. The INSRE, in its socio-economic inventory for the period 1960-1965, published in 1965, reported an even higher current average rate of about 3 per cent.

However, other contemporary analyses suggested a lower rate of increase. Thus the French Government, in a summary of the demographic situation and current projections in French-speaking African countries and in Madagascar published in December 1963, indicated an annual average rate of natural increase for the total population of 1.8 per cent for the period 1960-1985 (from 5.37 million in 1960 to 6.21 million in 1970), with an annual rate of increase for the population aged between 6 and 14 during the same period of 2.0 per cent, and an annual rate for the male population aged 15-59 of 1.9 per cent. The Commissariat général du Plan, in its first five-year plan for 1964-1968 itself adopted a slightly lower rate, and noted an average of 2.5 per cent applied to the 10-year period within which the plan was set, i.e., from 1964 to 1973.

In a draft request for UNFPA assistance transmitted by the Government in 1974 it was explained that by the mid 1960s the Commissariat général du Plan found that the unreliability of information on population size, structure and particularly levels and trends in rates of natural increase constituted a serious constraint upon plan preparation. For this reason, and because of the budgetary limitations upon a comprehensive census, it requested INSRE to undertake during 1966 a rapid demographic survey which would have as its principal objective the clarification of the rate of natural increase at the beginning of 1967. The results of this demographic survey, published in 1967, indicated a current rate of natural increase of only 2.1 per cent (with a 95 per cent chance that it was between 1.7 and 2.5 per cent), a level lower than that hitherto adopted. This revised rate was retained for planning purposes for much of the remainder of the 1960s. In December 1971 the UNDP reported a rate of 2.2 per cent, suggesting that the Government had assumed a continued mortality decline, but one much less rapid than that which had been accepted during the period 1958-1965.

It appeared that previous overestimates of rates and trends of natural increase had resulted from insufficient allowance for large early overestimates made by administrative enumerations and their progressive decline with improved methods in the late 1950s and early 1960s, and from an overestimate of the rate of mortality decline, undue attention being given to the apparent impact of campaigns against endemic diseases and insufficient attention being paid to the continuing impact of environmental causes of mortality, particularly as these affected levels of infant mortality, which remained very high. Thus in an academic study of the population situation in 1969 it was stated that the rate of natural increase in 1947 had already reached 1.8 per cent, which indicated a limited rate of mortality decline to 1966 when it reached only 2.1 per cent (assuming no change in fertility).

However, by 1970 serious doubts as to the validity of these rates were again being expressed. A study of the economic situation published in that year pointed out that statistics were still imprecise, indicating rates of between 2.2 and 2.6 per cent. The Commissariat général du Plan and the INSRE recognized the inadequacy of the data available and strongly recommended the taking of a comprehensive census; however, this was considered too expensive under the existing financial circumstances.

In addition to doubts as to the rate of natural increase (although it was now perceived to be lower than previously accepted levels), there were even greater doubts concerning the size of the total population. In this respect, the Government in general accepted the results of annual administrative enumerations. In its survey of economic development during the 1950s, published in June 1962, the Commissariat général du Plan noted a total population of 5.298 million in 1960. The 1964 total population had been reported to be 6 million in an American study of health services published in 1966. In 1970 it was pointed out that the total adopted for 1966 as a result of the demographic survey (6.2 million) appeared too low, since the administrative enumeration for that year indicated a total of 6.614 million. An INSRE estimate for 1967 of 6.777 million was reported, suggesting that the Institute itself inclined towards a higher total population. In 1969 a total of 6.91 million was reported in an academic study, presumably for 1968.

In 1971 the Government reported that the total population on 1 January 1967 was 6.777 million (compared to 6.2 million indicated by the demographic sample survey of 1966), in 1969 7.198 million, and on 1 January 1970 7.424 million. Totals for 1 January 1971 and 1 January 1972 were reported to be 7.655 million and 7.929 million, respectively. In late 1972 an American survey indicated an estimated total of about 7.6 million. It is noteworthy that these estimated totals suggested an average annual rate of increase of slightly less than 3.2 per cent during the late 1960s and early 1970s.

Government perception of size and growth

The over-all perception of the total size of population and of levels and trends of rates of natural increase held by the French administration

until the achievement of political autonomy in 1958 was that the country was underpopulated. This perception was based upon several factors. First, the total population of a little over 4 million in 1950 appeared to be not commensurate with a desirable long-term size of population, given the fact that the country was larger in size than France, and was known to possess substantial underused natural resources, even though certain constraints of topography and climate were acknowledged. Secondly, it was estimated that the rate of population growth was stagnant at about 1 per cent per year, at least until 1950. Moreover, some students of the country's nineteenth century history suggested that the population had been higher then than in any subsequent period. Thirdly, a chronic short-term problem had been the difficulty of obtaining labour for the modern sector. It was acknowledged that for various reasons the existing subsistence population were extremely unwilling to offer their labour, and that in this sense the existing economically active population was underused. Nevertheless, the shortage was felt to be capable of reduction if a larger population were available (and with, perhaps, the accompanying increased pressure upon land resources within the subsistence sector. 4/

However, the French administration recognized a number of short-term problems resulting from accelerating rates of natural increase. The principal study of the relationship between demograhic trends and development prospects during this period was that prepared in 1952 by the French INSEE. It recognized the small total size of population, the low densities of population and its slow rate of growth until the end of the 1940s, and it characterized the country as underpopulated. However, it pointed out that the assumed rapid decline in mortality which had begun at the end of the 1940s would most probably change the previously existing balance between resources and population. At existing levels of technology, there was a danger that a rapid increase in population would exert dangerous pressure upon resources, at least in some areas, and might result in a deceleration or reversal of the decline in mortality. The advent of such problems was admitted to be near but not immediate, and the study concluded that the principal question was whether the population would be able to establish, within the time available to it, an economy which corresponded to the needs imposed by demographic trends. The preliminary report made by R. Dumont in 1959, although limited to a consideration of the agricultural sector, also pointed to the very considerable potential which existed for an increased production by means of technological and organizational change, even within the existing relatively high-density metropolitan region.

Those concerned with development planning in Madagascar during the period of political autonomy from 1958 to 1960, and thereafter during the period of preparation of the first five-year plan, took an essentially similar view of the advantages of continued accelerated natural increase in the long-term but acknowledged the appearance and intensification of what were considered to be short-term problems to which the accelerating

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4/ The study of the budgets and nutrition of rural households in 1962, published in 1965, noted that very high levels of mortality had resulted from the war-time conditions and political disturbances of the period 1942-1947.

rate of natural increase had contributed but had not been the principal cause. By the late 1950s it was considered that during the late 1940s and early 1950s a rapid decline in mortality, with no commensurate decline in fertility, had resulted in an acceleration in rates of natural increase. Thus, in 1959 Dumont, in his report on agricultural development, noted that the funds allocated to expansion of the modern export sector during the previous decade would have been better spent in support of the basic needs of the fast growing population.

The three-year plan of 1959-1962 regarded technological and organizational change to be the solution to the short-term consequences of a more rapid rate of natural increase, which was considered in itself to be desirable in the long term because of the over-all need for a larger population to ensure the utilization of resources and the existence of an adequate national market. 5/ It emphasized what were considered characteristic problems of a population undergoing rapid growth, which had low levels of employment in the modern sector. It stated that the rate of natural increase, described as one of the highest in the world, would soon modify this situation and would lead to problems with respect to the provision of sufficient employment, food, housing and educational services. Nevertheless, it noted that the country was currently underpopulated, and spoke of a considerable improvement in the demographic situation since the introduction of improvements in health services after 1946. This suggested that the Government considered the assumed acceleration in rate of natural increase to be, on balance, desirable. 6/

However, the draft programme for 1960 which, unlike the three-year plan, was concerned entirely with immediate problems, noting a rate of population growth of "over 2.1 per cent", which was described as "explosive", and a very youthful population structure, listed a number of problems which resulted: difficulties with respect to the provision of adequate food production, adequate health and education sevvices, housing and employment. At the same time it noted that the spatial distribution of the population was inadequate. There was excessive migration to the urban centres, particularly to Tananarive, where the pressure upon services and infrastructure was the greatest. 7/

The French study of the economy, published by the Institut des hautes études in 1960, also noted the existence of a population explosion which was responsible for numerous problems facing the Government. Of these the disequilibrium between resources and population with respect to food production, particularly in Tananarive Province, was considered the most serious. Although land was available, it was considered that the costs

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5/ République malgache: économie et Plan de développement (Paris, Ministère de la coopération, March 1962), pp. 23-24.

6/ Programme triennal de développement économique et social, 1959-1962 (Tananarive, Ministère de l'industrie et du Plan: Bureau des investissements et du Plan, 1959?), p. 7.

7/ République malgache: économie et Plan..., pp. 5-9.

of its development would be high. Because of the high level of education already achieved, the high rate of natural increase was thought to imply considerable burdens in the provision of adequate services. Nevertheless, the country was characterized as underpopulated, and it was noted that the level of urbanization (that is, of population pressure upon urban areas) was still very limited.

Moreover, the politicians during this early post-independence period viewed the situation with respect to natural increase with unqualified optimism. Thus the Minister of Public Health and Population stated in 1961 that the country was characterized by a brilliant demographic condition as a result of improvements in health.

In an examination of investment and development problems published by the French Government in 1960 in which the relationships were analysed between development and the assumed accelerating rate of natural increase, taken to be at least 2.5 per cent on the basis of information derived from preparatory studies for the development plan, it was noted that the risk did exist of a disequilibrium between this rate of increase, on the one hand, and, on the other hand, that rate of growth in production considered necessary not only to maintain levels of living but also to improve them. The report nevertheless noted the small size of total population in relation to resources and suggested that technological and organizational factors had had more of a restraining influence upon development than the small size of population. In its summary of the economic situation and development planning published in March 1962 the French Ministry of Co-operation, noting the accelerated rate of growth (which it described as very rapid), its youthful structure and its inadequate distribution over national territory, and pointing out that recently the average annual rate of economic growth had been only 3 to 4 per cent, indicated that considerably greater efforts would have to be made to ensure that at least living standards did not remain stagnant or even fall.

The participation of A. Sauvy in the conference on development planning held in April and May 1962 is likely to have provided an ample opportunity for sophisticated discussion of the implications of the accelerated rate of population growth. In his report of the meeting and description of the situation, A. Sauvy noted that a race had been entered into between demographic growth and the diffusion and adoption of modern technology. The trend of the former was known and even irreversible for a generation at least. The trend in itself determined the need to establish developmental goals, the achievement of which would have to be a continual concern. The Government's planning organization agreed in general terms with these analyses, recognizing both long-term advantages and short-term disadvantages. In its survey of economic development during the 1950s, published in June 1962, the Commissariat général du Plan, noting a decadal rate of 2.6 per cent compared to one of not higher than 1 per cent during the period 1920-1950, and noting its youthful structure but also its unequal spatial distribution, stated that if the youthful nature of the population were incontestably a positive factor for development, it none the less constituted in the short term a considerable burden for the

country and for the active population, which was then smaller in size than the non-active population. The rate of natural increase was adopted as a point of reference against which to establish objectives for the production of commodities and provision of services which would ensure at least a gradual improvement in living standards and capability for development and modernization. The report noted that if a rate of increase of 2.5 per cent were to continue, an increase from 5,298,000 in 1960 to 7,675,000 in 1975 would occur, and that an inevitable increase above 7 million by 1970 must be expected, with all that this implied for the planning of food production, education, health and employment.

In its synthesis of conclusions and recommendations on the current development situation and its solution presented to the Government in October 1962, the Commissariat général du Plan noted that demographic trends as well as changes in the world situation made urgently necessary an economic "take off" from a situation which had changed little since independence. The fact that population had increased by 26 per cent during the previous 10 years and was then increasing at a rate of 2.3 per cent, with an extremely young age structure and with spatial disparities in distribution, was considered to be the primary factor in the context against which development objectives had to be established. It was noted that the population, likely to rise above 8 million only in 1975, was of very small size relative to national territory--8.9 persons per square kilometre. Only 2.8 per cent of the total surface was cultivated. In a land area still so little utilized, this population increase was considered to be without doubt a very positive factor. It was pointed out also that the growing pressure exercised by the youtnful population would inevitably lead to modification of the economic and social structures necessary for development. Moreover, the size of the national market would expand very rapidly: by 30 to 40 per cent in 10 years as a result of natural increase alone.

The Director of INSRE stated in a 1964 survey of the relationship between demographic trends and economic and social development problems and policies that if population growth was favourable in the long term because it would result in a denser population so that economic activities would be more effective, it would, conversely, constitute throughout this period a considerable burden for the adult population which would have to support the weight of what was described as this "human investment".

During this period of preparation for the first five-year plan careful attention was given to analysis of what was known of the demographic situation, increasingly detailed information and projections being included in the series of reports. In 1963 the Service de la statistique et des études socio-économiques published its population forecast, in which it noted that, although demographic processes were not immediately apparent and appeared resistant to any direct intervention, their importance was considerable, particularly in view of the changed circumstances of declining mortality and accelerating natural increase, common in the developing world and in Madagascar. Accordingly it was of the greatest importance to foresee the evolution of the population at a time when the

country's leaders were concerned with economic planning, as it affected directly or indirectly the greater proportion of the different activities within the country: education; employment; health infrastructure; electorate; consumption etc. For this reason the publication of what was known of the situation and its probable evolution had been considered important.

Again the political decision takers were more optimistic, stressing the long-term advantages and reducing the significance of short-term problems. The Minister of Public Health and Population, in a statement of the Government's perception of population problems and policies published in October 1963, stated that Madagascar was one of the less developed countries in which famine did not occur; previous shortages which had affected the south of the country no longer existed. This favourable circumstance was the result of adequate production of rice, to which the Government had given substantial attention. Industrial expansion was stated to have a considerable future. And finally, the Minister considered that a regular population increase warranted the greatest hope for the future of the country.

During the period of implementation of the first five-year plan, from 1964 to 1968, and thereafter to the end of the period under discussion in May 1972, the two contrasting themes--the short-term disadvantages of a rapid rate of natural increase and the long-term advantages of a larger population size--were given considerable attention. It was pointed out in a detailed study of economic progress published in 1969 that, since independence, growth of the economy had only with difficulty been able to keep pace with the rate of natural increase. In particular, agriculture had progressed at little more than the rate of natural increase, thereby permitting natural disasters to exercise a severe impact upon basic living standards. In value, increase in agricultural production from 1964 to 1967 had been 9.5 per cent, whereas the rate of natural increase had been between 7 and 8 per cent (at the revised annual rate of 2.1 per cent). Increase in food production had been 10 per cent, a result of a good harvest in 1967 for the staple, rice. The pressure upon land resources, particularly in Tananarive Province, with higher than average density, continued to be pointed out by other commentators. The impact of a youthful population structure and high dependency levels upon the full range of education services and employment was also emphasized in studies published in 1968 and 1971.

However, the same survey of economic progress which in 1969 identified some of the short-term problems associated with natural increase and population structure also pointed out that the population was of limited size, that an inadequate restructuring of the economy had been achieved by the first five-year plan and that increasingly adverse terms of trade had aggravated the economic situation. Thus, although the traditional, or subsistence, sector had succeeded in expanding at the same rate as that of population growth, there had been insufficient expansion of the modern sector, and accordingly no generation of over-all development. In December 1971 the UNDP office in Tananarive noted that the

estimated average annual increase in per capita income was 1 per cent, and that, taking into account an estimated 60 per cent subsistence level, food production was just able to satisfy the population's needs. Productivity in the agricultural sector was low, but this was the result of entirely insufficient technological and organizational change. Lack of improvement in the sector was even having a deleterious impact upon land resources. The country possessed a very wide range of potential for the production of tropical and temperate products, and it was reported that of the total area of 587,000 square kilometres, 365,000 could be considered as having an agricultural character but of which only 10 per cent were actually cultivated. Among the causes of the insufficient development, natural increase of the population was not mentioned. Finally, it was stated that given the developmental level already reached by the rural populations of certain regions and given their agricultural abilities together with the productive potential of the vast country, it was possible to claim that the chances of an improvement in their living conditions in the near future were excellent.

Several other factors were relevant to the maintenance by the Government of a consistent perception of the acceptability of the rate of natural increase during this period. One was the fact that the rate itself was found during the period to be lower than previously thought. Thus, although the first five-year plan had taken into consideration in the identification of its targets an annual rate of natural increase of 2.5 per cent, the demographic survey undertaken in 1966 indicated that the actual rate was 2.1 per cent. This implied that the advantages to be secured from a larger population would be postponed but also that the contribution of natural increase to the short-term problems generally identified was also less than might have been supposed. At the same time recognition of external economic constraints, difficulties of administration and plan implementation, the need to introduce the emergency measures of the major operations programme for 1968-1969 and the problems of Government during President Tsiranana's absence and the period of his limited power from May 1971 to May 1972, reinforced the view that non-demographic factors had an important part to play in the persistence of contemporary problems, however important the contribution of demographic factors themselves.

It may be noted that commentators of the mid and late 1960s also pointed to the presumed high mortality of the period of the Second World War and the political disturbances of 1947, implying a desire to secure demographic compensation for these losses. The economic and political difficulties which were experienced emphasized the sensitivity of the ethnic heterogeneity of the country and notably the duality constituted by the plateau and metropolitan Merina populations, on the one hand, and the coastal non-Merina populations, on the other. In such circumstances any attempt to limit rates of natural increase was not considered desirable. Finally, the feasibility of achieving any such decline was considered to be small, for mortality reduction had been shown to be less than previously thought, while there was no evidence of a desired fertility decline. Consequently, any attempt to reduce natural increase by means of an induced fertility decline capable of offsetting the desired mortality

decline, which occupied a priority high within the Government's objectives, was generally considered neither to be feasible nor desirable.

Policy with regard to size and growth

During the period of French administration prior to the Second World War, the extraction from the subsistence sector of an adequate labour force for public works and for the modern sector was the principal policy of the administration. Implementation was achieved predominantly by means of direct administrative action, taking the form of forced labour of various types. During the Second World War an increasing need for such forced labour was felt, and the policies adopted for its acquisition were instrumental in the growth of discontent which resulted in the 1947 Revolt, in spite of the abolition of forced labour in 1946. Thereafter, some components of the modern sector (French import-export companies and plantations) resorted to increasing mechanization, as the population within the subsistence sector remained highly resistant to labour recruitment, even when some increase in benefits was offered. The administration's population policy included proposed immigration, notably from Réunion, but this met with considerable resistance from Malagasy leaders and parts of the administration. Although perceived primarily as a health and welfare measure, the emphasis given to a rapid reduction in morbidity and mortality during the late 1940s and early 1950s was explicitly intended to stimulate an acceleration in the then stagnant rate of natural increase.

Policies adopted in the three-year plan of 1959-1962, in the transitional period during which the first plan was being prepared, and in the first five-year development plan of 1964-1968 itself, emphasized technological and organizational change, involving substantial investment and stimulation of greater interest in modernization among the population.

The three-year plan proposed technological and organizational changes, including spatial redistribution of the population, as solutions to the short-term consequences of accelerated rates of natural increase, the long-term implications of which were considered desirable. Basic strategies included the reduction of underemployment, the relief of pressure upon land resources in the metropolitan region by means of migration to western coastal regions and the achievement of a rate of growth in economic production of at least 6 per cent in order to ensure an actual improvement in living standards. Possible disequilibrium between rates of growth of population and production was to be avoided by ensuring the greater acceleration of the latter.

The draft programme for carrying out the three-year plan during 1960 proposed the protection and rational use of the country's agricultural potential, diversification of production and stabilization of income. These objectives were to be achieved largely by concentration upon nine "integrated zones" whose location, production potential and demographic conditions were particularly favourable. Increased investment in human resource development, in health and education and in mineral and industrial production was also proposed. In his 1959 report on agriculture,

R. Dumont recommended the adoption of much more intensive methods of cultivation, particularly in those areas near to Tananarive in which population densities were relatively high. In order to ensure a reasonable improvement in the level of living, a rate of economic growth of 6 per cent was chosen for the draft programme for 1960, explicitly in relation to the rate of population growth, then considered to be between 2.0 and 2.5 per cent. The importance of inducing an increase in production and service provision greater than rate of population growth was also stressed in all of the studies produced during the preparation of the first five-year plan. It was considered in general that investment was needed in order to apply the generally desirable increase in population effectively to underused natural resources. It was proposed not only to induce an improvement in spatial distribution but also to generate social change as a prerequisite for adoption by the peasantry of more appropriate attitudes to modernization in technology and organization. In addition, some proposals were made in 1963 for the short-term utilization of labour in the form of civic service. This was met with resistance, however, as being too much redolent of the colonial policy of forced labour.

In its first five-year plan of 1964-1968 the Government adopted an optimistic attitude towards the impact of continued natural increase. It noted that the current rate of economic growth, 5.5 per cent per year, was appreciably higher than that experienced during the period 1950-1960 (i.e., about 3 per cent), which was stated to have been almost entirely neutralized by an almost equivalent rate of population growth (2.3 per cent). Because of the improved economic growth rate, the level of consumption per capita would improve by 2.5 per cent per year, or by one quarter in the 10-year plan prospective period. It was stated that moderate effort in investment was needed to permit such improvement actually to continue. It was noted that whereas a lower rate of economic growth would be insufficient, a higher rate would involve excessive sacrifices for a population which, although not enjoying a very high standard of living, nevertheless was not suffering as people were in many developing countries, from insufficient food, over-population and unemployment. The rate of population growth during the period 1960-1973 was thought most likely to be 38 per cent, an annual average of 2.5 per cent. This was declared one of the basic facts in the preparation of the plan. The necessary increase in economic production and the provision of economic and social infrastructure and employment was calculated and presented on the basis of this figure. With respect to the living standard of the rural population, which was described as having improved by only 1 per cent per year during the previous decade, the plan anticipated an average annual increase in per capita income of 2.0 per cent, a total of 26 per cent during the period.

In addition to supporting a policy of implementing technological and organizational changes which would, among other things, make possible an effective response to accelerating rates of natural increase, the Government adopted from the first years of independence an explicitly pro-natalist policy. Thus in October 1963 the Minister of Public Health

and Population stated that "only those civilizations have survived which have practised a natalist policy in order to counterbalance very high levels of mortality." This policy was implemented by means of encouraging fertility, discouraging any factor, including family planning, which might limit fertility, and, primarily, by means of reducing mortality. Thus, in December 1972 the Economic Commission for Africa reported that the Government's policy had been to encourage fertility. The International Planned Parenthood Federation reported in July 1974 that in December 1965 President Tsiranana had declared that the country was "so vast and underpopulated that we have to make more babies". In August 1972 it reported that the Tsiranana Government had been strongly opposed to any suggestion of population limitation. Priority attention to achieving a more rapid decline in the rate of mortality was explicitly included in a policy designed to raise rates of natural increase.

During the period of implementation of the first five-year plan the Government's policy with respect to natural increase remained unchanged, and the adoption in September 1968 of the Papal Encyclical Humanae Vitae was strongly supported. In 1970 a survey of development since independence noted that the Government's policy "remained natalist". The succeeding Ramanantsoa Government confirmed, in its reply to the United Nations Second Population Inquiry which it transmitted in 1973, that the Tsiranana Government had followed a natalist policy.

Morbidity and mortality

Information available to the Government

During the 1950s and early part of the 1960s there was substantial agreement, on the basis of the partial sources mentioned above, that levels of mortality had gradually declined between 1920 and the early 1950s with the notable exception of the war-time period 1941-1947, after which the rate of decline had rapidly accelerated as a result of the implementation of anti-malaria programmes, particularly in the plateau provinces. However, it was recognized that at the beginning of the 1960s morbidity and mortality resulting from environmental hazards and nutritional deficiencies remained severe.

On the basis of available information in 1962, A. Sauvy reported a crude death rate of 16 per thousand in that year. In 1962 a statistical survey was made of family budgets and nutrition in rural areas, the results being published in 1963. The survey, which covered the 86 per cent of the population then estimated to be resident in rural areas, reported a crude death rate of about 20.0 per thousand population, with a slightly higher rate for males than for females. The infant mortality rate was about 130 per thousand live births, with a difference between males (140 per thousand) and females (120 per thousand). The report of the survey noted that these rates were relatively low for Africa. Life

expectancy at birth was also reported to be relatively high, at about 51 years, with a slightly higher level for females. This information, together with information derived from the plateau provinces in which vital registration was best but mortality lowest, was used for the first attempt at the projection of populations, published in 1963, and as the basis for the calculation of rates of natural increase during the period of preparation of the first five-year plan. The estimate of a crude death rate per thousand population of 19 was quoted also in the statement made in October 1963 by the Minister of Public Health and Population, in which the decline in mortality was noted; further rapid decline was identified as the principal means of bringing about an acceleration in the rate of natural increase.

The report of public health problems prepared by the United States National Research Council in 1966 noted that the health status of the Malagasy population was much better than it was in most countries of Africa and Asia. The country was stated to be free from yellow fever, trypanosomoiasis and smallpox, and believed to be free from onchocerciasis and loiasis. The principal diseases requiring attention included tuberculosis, malaria, leprosy, bilharziasis and venereal diseases.

The demographic survey of 1966, which was undertaken explicitly in order to provide more reliable information on the rate of natural increase, and, particularly for this purpose, on the level of mortality, indicated that the latter was much higher than previously assumed. The crude death rate was estimated to be 25 per thousand population, the infant mortality rate 102 per thousand live births, and the average expectancy of life at birth 38 years. The survey indicated a substantial variation in levels of mortality between regions: thus the plateau areas had a crude death rate of 17 per thousand while the coastal areas on average had a rate of 31 per thousand. In Tananarive Province itself a rate of only 16 per thousand was reported.

In a study of the demographic information published in 1969 it was pointed out that revised estimates of rates of natural increase indicated that rates had accelerated from 1.8 per cent in 1947 to 2.1 per cent in 1968. This suggested that, in conditions of unchanged fertility, the crude mortality rate had declined much less rapidly than had been previously thought, that is from 28 to 25 per thousand during the approximately 20-year period. However, the impression that mortality was undergoing a rapid decline continued to be expressed after publication of the 1966 survey results; one economic study published in 1970 mentioned what it described as the "spectacular fall in mortality which had occurred during the previous 15 years". In a study of the demographic transition in Madagascar published in 1971 it was pointed out that although since 1947 the registration of deaths had improved substantially, the total number of reported deaths had diminished, indicating some substantial impact upon the actual death rates. In December 1971 UNDP also described as spectacular the impact of anti-malaria campaigns since 1950.

In December 1971 the UNDP office in Tananarive noted that, although results obtained in the campaigns against major endemic diseases had been

often remarkable, there remained much to be accomplished. In particular the rate of infant mortality remained very high, scarlet fever continuing to be one of the principal causes of death among children. The principal diseases remained malaria, tuberculosis, leprosy, plague, smallpox, syphilis and bilharziosis. In August 1972 the International Planned Parenthood Federation reported that sterility and infertility, caused primarily by venereal diseases, were thought to be serious problems.

Government perception of levels of morbidity and mortality

During the period of transition from colonial to national development planning, between 1958 and 1964, the Government showed satisfaction at the rapidity with which previously high rates of mortality had fallen as a result of the public health campaigns begun in the late 1940s and continued during the following decade. The improvement was seen not only as a major contribution to the improved welfare of the population but also as the means whereby the desired acceleration in rate of natural increase had been achieved. Considerable attention was given to the problems of health, nutrition and the environment in the preparatory studies for the five-year plan. No similarly optimistic statements are known to have been made, since the results of the 1966 demographic survey indicated a much smaller than expected mortality decline.

Policy with regard to morbidity and mortality

During this period the Government attempted to extend and intensify the previous public health campaigns which had concentrated their attention on limiting the effects of malaria and of other major endemic diseases. The three-year plan of 1959-62 gave emphasis to health and habitat improvement. However, projects included in the 1960 section of that plan were concerned entirely with the modernization of curative facilities in the hospitals of Tananarive and certain second-order urban centres. In 1964 a department of preventive medicine was established. Considerable decentralization of peripheral and mobile services to provincial administrations was attempted. The five-year health plan integrated into the five-year plan for 1964-1968 gave priority to the control of endemic diseases, the expansion of curative and preventive services to all rural areas and the improvement of nutrition. The highest priority was given to the training of medical, paramedical and medico-social personnel and to health education in close co-operation with rural development services. The five-year plan provided for the modernization and re-equipment of hospitals in each of 19 prefectures, giving priority to the more isolated areas. In it the Government also proposed a set of supportive programmes in preventive and curative health, improvement in nutrition, water provision and housing. However, in a review of developmental programmes made in 1968, it was noted that only 66 per cent of the plan's objectives in the area of curative medicine and only 32 per cent of those in the area of preventive medicine had been realized. Moreover, those objectives were themselves described as only modest. However, it was noted that the private sector, notably religious missions, had made a notable contribution to the improvement of the total services available.

In 1971 the UNDP office in Tananavire reported that in 1969 there had been one bed (in both public and private hospitals) for 351 persons, and one doctor for 9,897 persons. The Government had continued to give priority to preventive medicine and public health as well as to the strengthening of curative health services. Special attention was given to rural areas. Health education and social medicine, recently developed, were to be expanded. Yet, in many areas the resources available to support the effective operation of installations once constructed had been limited.

In addition to the immediate benefits in improved health and welfare, the Minister of Public Health and Population stated in 1963 that the Government's policy with respect to reduction in morbidity and mortality explicitly included the contribution which such reduction would make to higher rates of natural increase. This policy objective was illustrated by the fact that a single ministry was responsible for both public health and population from the first year of independence.

Fertility

Information available to the Government

Information concerning fertility was derived from the statistical sources listed and the observations of sociologists, anthropologists and ethnologists. These indicated a level of fertility which was generally high but was variable between ethnic groups and regions. The variation resulted from not only differences in social behaviour but also from the uneven impact of morbidity and mortality constraints. In 1962 A. Sauvy reported a crude birth rate of 47 per thousand.

The first systematic statistical survey which provided information on fertility for a large sample of the population was the 1962 study of household budgets and nutrition among the rural population. It indicated high levels of nuptiality, with only 14 per cent of females aged between 20 and 24 unmarried, and negligible numbers unmarried between the age of 45 and 49 years. There was little regional variation in nuptiality levels. Only 2 per cent of rural households were polygamous. The crude birth rate was 45 per thousand population, with a variation of between 44 and 49 among five provinces, while for the remaining province, Tulear, the rate was 37 per thousand. The adjusted national crude birth rate was reported to be 44 per thousand, the general fertility rate was 194 per thousand females of reproductive age and the average number of children ever born to women of 50 years or more was 5.9. The average size of rural households was 4.7 persons, with 2.1 children aged less than 15 years. These findings were used by the Service de la statistique et des etudes socio-économiques in the preparation of its population forecasts published in 1963, and by the Minister of Public Health and Population in his statement of population policy in October 1963.

The demographic survey of 1966 reported a crude birth rate of 46 per thousand population, a general fertility rate of 200 per thousand

females of reproductive age and a crude reproduction rate of 3.3. High levels of sterility were noted in the low-density areas of the west and north-west. The rate for the Merina population, 44 per thousand, was lower than that for any of the other major ethnic groups. In August 1972 the International Planned Parenthood Federation stated that sterility and subfertility resulting from venereal disease were still thought to be a serious problem. For the rural population, and consequently for the national population of which it constituted 85 per cent, fertility was found to be rising, while in the major urban areas it was declining. The rate of 46 per thousand was quoted by the Economic Commission for Africa subsequently up to the end of the period under discussion.

Anthropological and sociological studies prepared between 1960 and 1972 indicated that although certain rural populations had been in some ways affected strongly by recent changes, there had been no social, economic or biological influences sufficient to have induced any change in their fertility behaviour. Although migration to urban areas had been substantial, close links with rural areas were maintained and thorough socio-economic transformation was absent, except in the case of a very small minority. Nevertheless, there were indications that the fertility of the population of major urban areas was declining.

Government perception of levels and trends of fertility

During the period of French administration and during 1958-1960 it was known that the general level of fertility was high, although some references were made to possibly low levels in certain western districts. High levels were not considered to be prejudicial to family welfare in conditions of a largely self-sufficient subsistence economy in which traditional living standards were easily maintained with the possible exception of the higher-density areas of the plateau region. However, increased use of maternal and child health services was noted with satisfaction in a report on the evolution of the economy to 1958 published in 1960 by the Bureau des investissements et du Plan. The extension of coverage was considered important, as a means of improving qualitative aspects of fertility.

The first population projections drawn up for use in preparation of the first development plan and published in 1963 noted that the most probable trend for fertility was a slow fall, from a crude birth rate of 44 per thousand population in 1960 to 32 per thousand in 2000. This was considered to be commensurate with an improvement in levels of living. This forecast was accepted by the Minister of Public Health and Population in his statement of October 1963, in which responsibility for higher rates of natural increase was ascribed entirely to mortality decline. However, the Government was interested in obtaining a more detailed assessment of possible future changes in fertility. In 1964 the Director of INSRE reported that studies were envisaged with the objective of discovering to what extent higher levels of education and an improvement in living standards might have an impact upon levels of fertility. Relatively slight changes in the fertility behaviour of women would have

important implications for the future evolution of the population, and it was therefore essential to know of the possibilities in advance.

The 1966 demographic survey indicated a rising trend in rural fertility--and therefore in the national average--but a decline in urban fertility. The probability of a limited rate of decline in levels of fertility was accepted in a study of the population published in 1969. The reason for lower levels among the metropolitan Merina populations was stated to be a function of socio-economic development, the reduction of traditional constraints and a desire to restrict the costs of larger families. Changes in information availability appear to have had some effect upon the Government's perception of fertility. During the early 1960s it was believed that mortality decline was rapid and fertility decline slight. Two statements by successive Ministers of Public Health and Population indicated satisfaction that mortality decline alone made an adequate contribution to the desired acceleration of rates of natural increase. After the publication of the results of the demographic survey of 1966 it was realized that mortality decline had not been as spectacular as had been previously thought, and that whereas rural fertility was rising, that in urban areas already declining. In these circumstances greater emphasis was given to the encouragement of an actual rise in fertility, notably to the prevention of further spread of the decline in urban fertility, the beginnings of which had already been reported. Accordingly the Government's perception of levels of fertility may be described as having changed from one of acceptance of high levels likely to experience only slight decline to one of awareness that the increased possibility of future decline warranted its attention. It may be noted in this respect that such a perception of fertility did not rest entirely upon the matter of contribution to aggregate levels of natural increase. It also reflected a reluctance--stemming from traditional Malagasy views and the Roman Catholic orientation of the Government itself--to encourage a limitation of family fertility. For this reason the Papal Encyclical Humanae Vitae was strongly supported. One of the themes of the conference on development held in April 1971 was the "malgachisation" of the economy. The discussion included considerable emphasis upon the danger of losing traditional virtues, including those associated with the family as the basic unit of society.

Policy with regard to fertility

The policy of the French administration to 1958, and that of the Tsiranana Government from 1958 to the mid 1960s with respect to fertility was relatively passive, since rates were considered to be high, with prospects of an appreciable decline only at a distant future date and at a rate considerably lower than a compensating decline in mortality. Measures taken to improve maternal and child health were implemented primarily to achieve a qualitative and not quantitative improvement. The provision of family allowances was designed to ensure that the adoption of urban living conditions was not inimical to the maintenance of relatively large families but had a broad socio-economic--not a specifically demographic--objective. In any case, in 1956 only 25,000 children were affected by family allowance

provisions. Nevertheless, French restrictions upon contraceptive use were maintained after independence, and in the statements made by the Minister of Public Health and Population in 1961 and 1963 it was implied that the Government's policy was pro-natalist.

In December 1965 President Tsiranana was reported to have made strong statements in favour of increased fertility, and early attempts to establish a family planning movement at that time were subjected to severe restriction. In June 1967, however, a family planning association having a programme of very limited scope received official recognition, having made clear that its objectives were concerned with purely health and welfare matters. In 1970 and 1972 it was reported that the Government's policy was to encourage fertility. This was confirmed in respect to the Tsiranana Government in the reply to the Second United Nations Population Inquiry transmitted by the succeeding Ramanantsoa Government in 1973.

Immigration

During the period of French administration, and particularly during the 1940s and early 1950s, consideration was given to encouraging immigration from Réunion, which had furnished migrants during earlier periods, in order to resolve contemporary shortages of labour in the modern sector. However, these proposals were met with considerable resistance both from Malagasy leaders and from those elements of the administration concerned with protection of the indigenous community. Neither of the statements on population policy made by successive Ministers of Public Health and Population in 1961 and 1963 made any mention of immigration, and no information on the Government's perception or policy was included in the general studies of population and development published during the period. A brief survey of policy was published by the International Labour Office in 1962. Since the 1962 survey of budgets and nutrition was limited to the rural population, it provided little information on immigrants, most of whom were urban residents. No information was provided by the demographic survey of 1966. In 1969 it was reported that an estimated 37,000 persons of Comorian origin were resident in the country, most of whom had arrived after 1947. Fifteen thousand were resident in Majunga, the remainder in Tananarive and other major urban centres. Chinese and Indian minorities had been introduced during the period of French administration and also lived principally in urban areas.

Emigration

No information on significant permanent emigration is known to exist. However, it is unlikely that any significant movement occurred or was desired. No governmental statements are known to have been made.

Spatial distribution

Information available to the Government

Information adequate for general planning purposes with respect to the spatial distribution of the population was available at an earlier date than that with respect to mortality and fertility. Administrative enumerations had revealed its general configuration during the period prior to independence, and during the 1960s the statistical services undertook a series of detailed censuses of selected urban and rural areas which provided detailed demographic information for use in comprehensive local studies. Many of these were prepared by French development agencies, notably by the Bureau pour le developpement de la production agricole (BDPA). Information obtained by these various means was used in the preparation of general studies, including a comprehensive development atlas, as well as studies of migration between rural areas, rural to urban movement in general, and the growth of major urban centres, notably that of Tananarive. The agricultural survey of 1961 and 1962, the survey of household budgets and nutrition among the rural population in 1962 and the demographic sample survey of 1966 also contributed substantially to an improvement in knowledge of trends and patterns in spatial distribution.

The configuration of the spatial distribution of the population was characterized by an urban system marked by extreme primacy in Tananarive, the capital, a poorly developed second- and third-order urban system at regional and subregional levels, and a pattern of rural settlement marked by very considerable variation in density from relatively high levels on the east coast and in plateau metropolitan regions to very low densities in the west and north-west, and by a high degree of settlement dispersion.

The growth of Tananarive had been marked by steady expansion rather than sudden explosion, at least until the late 1960s. In 1920 the population was 58,000, in 1940 it reached 150,000, in 1962, 248,000 and in 1969, 350,000. However, there was some indication that the rate of growth of the metropolitan centre had accelerated during the 1960s, and in 1969 it was reported that it was increasing rapidly as a result of high rates of natural increase and an annual net in-migration of between 13,000 and 15,000. Rates of growth of the regional and subregional centres were considered to be less rapid. Compared to the total of 350,000 for Tananarive in 1969, the second largest urban centre, Tamatave had a population of only 50,000, and six other centres had totals of between 20,000 and 50,000. The greatest concentration of urban population was in the metropolitan province of Tananarive, and in the adjacent plateau province of Fianarantsoa. In these two provinces lived an estimated 530,000 persons out of the urban total of 829,000.

In 1972 it was reported that the proportion of the provincial population classified as urban varied from 20 per cent in Tananarive Province to only 5 per cent in Tulear Province. Annual rates of growth of the urban population had averaged 4 per cent during the period 1950-1970,

with approximately one half having been contributed by natural increase. In 1970 the population totals for the six centres other than Tananarive were Antsirabe, 57,000; Tamatave, 56,900; Majunga, 54,000; Fianarantsoa, 50,700; Diego Suarez, 46,900 and Tulear, 35,950. A further 45 urban centres had populations over 5,000, and 350 centres had populations of between 1,000 and 5,000.

Estimates of the proportion of the population classified as urban (generally defined as that number of persons resident in communes with populations of over 5,000) varied between 12 and 15 per cent during the period. The survey of budgets and nutrition of rural households in 1962 assumed a rural proportion of 86 per cent while in 1969 two separate general studies of the economy and the demographic situation indicated urban proportions of 15 and 12 per cent respectively. In 1971 the UNDP office in Tananarive reported that 86 per cent of the population was agricultural while in 1972 the United States Government's review reported an urban proportion of 14 per cent. The total urban population increased from an estimated 800,000 in 1962 to 829,000 in 1969 and to 1,050,000 in late 1972.

Rural to urban migration was not considered to have been extremely high during this period. In 1969 it was reported that much of the movement was from adjacent high-density rural areas to Tananarive and in 1972 it was noted that each year after the harvest there was a considerable movement of young people to the capital; not finding employment there, many returned to rural areas.

The wide variation in densities of the rural population was noted by commentators throughout the period. In 1962 it was reported that 60 per cent of the population was resident on 20 per cent of national territory and that large areas were sparsely populated, often by shifting cultivators. These facts were given attention by commentators in the late 1960s and early 1970s. In 1971 it was reported that 12 per cent of the population was located on 50 per cent of the national territory, while 50 per cent of the population was resident on only 9 per cent of that territory. In 1971 the UNDP office in Tananarive reported that of the total area of 587,000 square kilometres, 365,000 "had an agricultural character", of which only 10 per cent was actually cultivated (that is, 0.6 per cent of the total national territory). In 1969 the Atlas de Madagascar included detailed information on spatial distribution.

The substantial rural to rural movements of population, concerning which information was increased by the 1966 survey, were also noted and fully analysed. In 1972 it was reported that an estimated 35,000 to 50,000 persons left their home areas to work outside them each year. The proportion of the population born in each province varied from 1 per cent in Tananarive to 20 per cent in Tulear, 40 per cent in Majunga and 75 per cent in Diego Suarez.

Government perception of spatial distribution

Throughout the period of the Tsiranana Government commentators argued that the level of over-all urbanization was low, and that its increase would be beneficial. The absence of explicit comment to the contrary in official developmental studies, the three-year plan for 1959-1962 or the five-year plan for 1964-1968, suggests that the Government shared these views. However, it was also generally agreed that the growth of the metropolitan centre, Tananarive--notably in so far as it was the result of migration from adjacent relatively high-density rural areas--had resulted in excessive demand for housing, services and employment and in the appearance of crime and delinquency, particularly among youth. However, in 1969 it was pointed out that notwithstanding the capital's rapid growth there were few bidonvilles around the city. These problems were the object of the Government's concern in its three-year plan for 1959-1962.

In a study published in 1969 of the extent of implementation of the first five-year plan and of the economic situation during the 1960s, it was argued that a higher rate of rural to urban migration would be beneficial. It was pointed out by a number of commentators that the regional and subregional urban centres were insufficiently developed to generate modernization outside the metropolitan region. Moreover, the urban system and the pattern of activities associated with the modern sector, mainly primary production for export, constituted what was described as a poorly integrated economic archipelago within the national territory.

With respect to the pattern of spatial distribution of the rural population, it was noted by some commentators that the level of dispersion and the small size of nuclear settlement were constraints upon development. In 1971 the UNDP office in Tananarive emphasized the problems caused by difficulty of access to a high proportion of the rural population. The over-all distribution of the rural population within national territory was generally considered to be unsatisfactory.

Both the French administration and the Tsiranana Government considered the spatial distribution of population to be less than acceptable because of its overconcentration in the plateau areas of Tananarive and Fianarantsoa Provinces, with attendant increasing pressure upon land resources and the beginning of an exodus to urban centres, particularly to Tananarive, and because of the insufficient population in most remaining regions, particularly those with considerable under-used resources, in the north, north-west and west. While it was noted with satisfaction that a spontaneous internal migration of peasant farmers was taking place, this was considered to be insufficient and inadequately directed to areas having optimal potential. One of the principal problems in overcoming these disparities was seen to be the size and physical characteristics of the country, which made interregional communications difficult. It was generally acknowledged, however, that prior to the 1950s very little investment had been made in transportation infrastructure. Whereas the

need to generate larger flows of migrants to the underpopulated regions, notably those in the west, was acknowledged, it was also pointed out that the substantial existing migration was uncontrolled and wasteful of both human and natural resource potential. Closer planning of movements was proposed to ensure that co-ordination was improved between migration programmes and capital investment in regional projects, notably in settlement schemes.

Policy with regard to spatial distribution

Although the French administration and the Tsiranana Government acknowledged the problems caused by migration into Tananarive, their policy was in general one of responding by providing additional services and urban infrastructure, but not of attempting to halt in-migration. The first five-year plan in particular stressed construction of low- and middle-income housing and improvement of socio-economic infrastructure. Attempts to reduce in-migration were limited to the adjustment of minimum wage schedules, in order that these should be slightly less favourable to the metropolitan centre, and to stimulation of interest in rural development occupations among the educated. Basically, the policy comprised attempts to modernize the organization and technology of adjacent rural areas within the metropolitan region in order to improve the perceived benefits of continued residence in rural areas.

During this period regional and subregional urban centres received some investment in their socio-economic infrastructure, but there was no attempt to develop a co-ordinated and dynamic urban system or to decentralize secondary and tertiary activities from the metropolitan centre. Interest in regional development was confined largely to investment in modern sector enclaves in areas considered to have the greatest potential for production of crops appropriate for export. However, within these enclaves, termed "integrated zones", considerable efforts were made to implement comprehensive projects, including settlement and colonization schemes for migrants originating in the relatively high-density plateau areas and in the impoverished southern region. Although considered desirable, no comprehensive policy of directing the spontaneous internal migration movements was implemented.

However, considerable emphasis was given to the gradual organizational and technological modernization of the rural population in situ, notably in the relatively high-density areas of the metropolitan region and other plateau and east-coast areas. President Tsiranana placed great emphasis upon this process of gradual modernization of the peasantry and upon the utilization of the potential for community labour which existed within traditional social organization. Realization of this potential was the goal of the ras du sol movement. Several studies pointed out the still very considerable potential for increased productivity which might be achieved by appropriate technological and organizational modernization.

The principal component of the Government's policy with respect to the spatial distribution of the population was concerned with rural

development, and it coincided with one of the priorities within development policy as a whole. Accordingly a substantial part of the various studies prepared during formulation of development policy and of the development plan itself consisted of measures designed to improve productivity in the rural sector, provide services and socio-economic infrastructure, develop the various regional projects identified and bring about greater integration of formerly separate subregional economies within a national whole.

II. THE PERIOD 1972-1976

The political and economic situation

In May 1972, after a period of civil disturbance, President Tsiranana handed full powers to General Ramanantsoa, formerly Chief of Staff, and a referendum held in October of the same year gave the new President a mandate to govern for five years. During 1973 and 1974 the Ramanantsoa Government enjoyed considerable popular support. Elections for a National Development Council in October 1973 provided a substantial victory for the government parties. However, during December 1974 and January 1975 further disturbances took place. In February 1975 Colonel Ratsimandrava, formerly Minister of the Interior and organizer of the fokonolona movement, assumed power, only to be assassinated six days later. A National Committee for Military Leadership was formed under General Adriamahazo, but in June the former Foreign Minister, D. Ratsiraka, was elected President of the Supreme Council of the Revolution and in a referendum in December 1975 was confirmed as President. In January 1976 he formed a Government of National Unity.

During this period, when the Government was attempting to bring about a restructuring of external economic relationships, deteriorating terms of trade, the impact of the substantial increase in the cost of petroleum products, and global inflation caused severe economic hardships.

Development planning

The Ramanantsoa Government implemented institutional changes designed to bring development planning more closely under the control of the Presidency. During the second half of 1972 and during 1973 the planning agency was engaged in adapting the previously prepared draft development plan to the over-all strategy of the new Government. This involved a reorientation of the economy towards a moderate form of pragmatic socialism. Steps were taken to remove French and South African economic interests. In August 1973 President Ramanantsoa announced a "non-capitalist" development policy including state control of vital economic sectors, foreign holdings and unused lands. A national reconstruction programme was adopted. Considerable emphasis was given to expansion of the system of fokonolona which was described as combining traditional rural communal organization with features similar to those of the Tanzanian ujamaa system. However, these policy and institutional changes took place during a period of severe economic difficulties. The need to solve them was one of the determinants of the new policy.

Early in 1974 the Ramanantsoa Government announced details of a development programme for 1973-1977, the principal aim of which was to achieve both self-sufficiency in food production and economic independence.

In 1974 it published the final version of its development plan for the period 1974-1977. The plan agreed in its over-all analysis with criticisms made during the last years of the previous Government that the societal structures inherited from the colonial period had been insufficiently modified. It pointed out that up to 1972 the economic domination exercised by foreign investors had resulted in what it described as a monopolistic domination of savings such that it was not surprising that the level of living of the population had not improved since independence. Indeed the unequal distribution of national income had aggravated social inequalities inherited from the colonial period. Accordingly an original and effective renovation of the structure of production and of social relationships was necessary. The State and the fokonolona would be the principal agents for achieving an improvement in the basic living standards of the poorer strata of the population, which constituted the majority.

Shortly after publication of the development plan for 1974-1977 in February 1975, there occurred a political change which resulted in the assumption of Government by President D. Ratsiraka. In August 1975 the Charter of the Malagasy Socialist Revolution was adopted which set out a programme of substantial changes in societal structure. In September 1976 the UNDP office in Antananarivo, in a statement of assistance required by the Government for the period 1977-1981, reported that the development plan for the period 1974-1977, which had been adopted by the Ramanantsoa Government, was largely in harmony with the principles of the Charter of the Malagasy Socialist Revolution. However, it noted that the gradual establishment of new socialist structure was likely to bring about changes in the plan and accordingly in its own programme of assistance. The Charter indicated that the fundamental objective of long-term efforts to build the national economy was the establishment of basic industry. However, this presupposed the development of agriculture and light industry (agro-industry)--agriculture as the basis and industry as the principal driving force of the economy. The over-all goal of the Charter was the achievement of substantial economic progress which would benefit in particular the poorest economic groups. The development policy of the Government was directed towards meeting the essential needs of the entire population, with emphasis upon improvement of the employment situation, self-sufficiency in food production, more equitable distribution of income and regionalization of activities. The goal was to utilize, as a matter of priority, the country's own human, natural and financial resources with a view to ensuring autonomous, balanced and harmonious development. Therefore, the Government stipulated that all research would be directed in accordance with the principle of autonomous development, and would focus on the development of technology adapted to those resources and which was actually available, thus making it possible to expand employment to the full. The fundamental change in attitude advocated by the Charter of the Malagasy Socialist Revolution would influence both the planning and implementation of new projects, particularly those which were to be included in the next national development plan.

General policy with regard to the demographic situation and trends

Both the Ramanantsoa and the Ratsiraka Governments gave high priority to the formulation of an appropriate population policy. This was indicated by both the institutional arrangements made and the statements issued. In its reply to the Second United Nations Population Inquiry, which it transmitted in January 1973, 9/ the Ramanantsoa Government stated that formulation of its population policy was a priority matter. For this reason, it had created a Population Directorate in the Ministry of Public Health and Social Affairs. The Directorate included demographic, social action and health education, and social medicine services. The general demography service in INSRE continued its function, while that Institute's general statistics service was made responsible to a National Census Committee for implementation of the census programme. INSRE was transferred to the Directorate-General of the Government from the previously responsible Finance Ministry. The Planning Directorate contained a recently established Human Resources Service.

In a speech to the World Population Conference in August 1974 the Malagasy representative stated that the Government had always considered population problems to be among its priority concerns, since any development policy had above all the goal of improving the welfare of the entire population, and not that of a small minority.

The Permanent National Population Committee had been established in January 1974 within the Population Directorate of the Ministry of Social Affairs. The Committee included all governmental and non-governmental organizations which were interested in population problems. All ministries were represented on it, as well as INSRE. Its goal was the formulation and implementation of a population policy whose principal objective would be the achievement of family welfare, the family being the basic cell of the national society. The Committee had attempted to formulate a population policy in the context of trends in rates of natural increase which would result in the achievement of a total population size of 10.5 million in 1980. It was considered as important to plan demographic growth as to plan for economic and social development, the need being the achievement of harmony between them. Occupying first place in the policy then under formulation was improvement in the spatial distribution of the population.

The fact that the Ratsiraka Government attached an even higher priority to population matters was indicated by the establishment of a Ministry of Population and Social Affairs (Ministère de la population et de la condition sociale). In its reply to the Third United Nations

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9/ The reply was prepared by M.P. Ramakavelo, a specialist in nutrition and public health, Chief of the Demographic Service of the Population Directorate in the Ministry of Social Affairs.

Population Inquiry in April 1976 the Government stated that the demographic information needed the formulation of a population policy was obtained from both the statistical services, which were again organizationally dependant upon the Ministry of Finance and Planning, and from governmental research institutions. The responsibility of the planning agency for the over-all formulation of population policy had been assigned to it in 1960 and again in 1973. The Ministry of Population and Social Affairs, in collaboration with other agencies and particularly with the planning agency, had been designated as responsible for decision-taking with respect to population policy in 1976. The Service des statistiques sanitaires et démographiques (of the Ministry of Public Health) had collaborated with the Ministry of Population and Social Affairs in the preparation of the Government's reply.

The Ramanantsoa Government had transmitted its reply to the United Nations Second Population Inquiry in January 1973, indicating that population policy had been judged of priority importance and was perceived as a component of its broader development strategy. It pointed out that the Government's policy was based on improvement of the level of living of the broad masses of the population, such that they would enjoy complete physical, mental and social well-being and accordingly participate fully in the socio-economic development of the country. The reply examined the broad socio-economic situation and commented upon a broad range of matters related to population, including family planning, health and nutrition, employment, rural development and sources of information. It pointed out that the development plan of the new Government was then awaited, implying that formulation of its population policy could be completed only when the development plan had been itself finalized.

During the period of preparation of the development plan for 1974-1977 the Government was nevertheless active in respect to certain aspects of population policy. In 1974 it issued a decree which set out a comprehensive policy with respect to internal migration. 10/ In April 1974 the International Planned Parenthood Federation reported that the Government had requested assistance from the United States Agency for International Development (USAID) in the provision of an expert to study population problems in relation to fertility control, in training medical and para-medical personnel and in demographic training. In July 1974 the Government submitted to UNFPA a request for assistance in expanding and deepening its capacity to deal effectively with its national and sub-national population problems. The Population Directorate in the then Ministry of Social Affairs was to have responsibility for work in this field, in close co-operation with the Permanent National Population Committee and other governmental agencies which were reported to have a special interest in population planning and related activities. These were stated to include the Ministries of Economy and Finance, Health, Education and Cultural Affairs, Rural Development, and Labour, as well as INSRE. Emphasis within the project was given to the improvement of

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10/ Lumière, 31 March 1974, pp. 1, 4, 8. The policy had already been advocated in the "green plan" of the Ministry of Rural Development and had been supported by the Permanent National Population Committee.

demographic information and the collection and analysis of information concerning cultural values relevant to population policy.

As part of its World Population Year projects, the Government held a Population Week in May 1974, and a National Population Seminar in July attended by 150 participants from interested ministries, non-governmental organizations and international organizations. The Government was represented at the regional consultation for Africa preparatory to the World Population Conference held at Addis Ababa in May 1974 and at the World Population Conference held in Bucharest in August 1974. It was not represented at the Expert Group Meeting on Population Policy organized by the Economic Commission for Africa (ECA) at Addis Ababa in November 1974.

The development plan for 1974-1977 included a limited amount of information on the demographic situation but no explicit statement of population policy, although it gave substantial attention to those aspects of society whose unsatisfactory condition was perceived to have resulted in part from demographic factors: spatial distribution of the population; health and nutrition; employment and education.

The Ratsiraka Government was represented at the Regional Post World Population Conference Consultation held at Lusaka, Zambia, in April 1975. However, during that year of political consolidation after the changes in Government which occurred in February, the Government's principal population concern was implementation of the first comprehensive population census. This received priority because the Government considered that increased demographic information was essential to the formulation of a detailed policy with respect to population. In April 1976 it transmitted a comprehensive reply to the Third United Nations Population Inquiry. In September 1976 the UNDP office in Antananarivo reported that the Government, in indicating its over-all priorities for the purpose of securing United Nations assistance, had stated that the development of human resources was the essential basis of the strategy it had adopted.

In March 1977, the occasion of a visit to the country by the Executive Director of UNFPA was marked on the one hand, by the announcement of the establishment in Antananarivo of a UNFPA regional co-ordinating office for the Indian Ocean area responsible for Madagascar and for Mauritius, Seychelles and the Comoros and, on the other hand, by a comprehensive statement by the Minister of Population and Social Affairs. He stated that although the Government had taken careful note of the recommendations of a UNFPA mission which had visited the country in February 1976, his Ministry had been fully occupied in its own institutional establishment and had accordingly not completed its consideration of them. It was then engaged in a preparatory phase, involving a preparation of a comprehensive set of programmes of social protection and promotion concerning the entire population. The matter of an appropriate population policy required careful consideration, for a policy which appeared appropriate to some might be considered inappropriate by others.

It was noted that the transfer of technology relevant to development was frequently discussed but it had to be recognized that the receptivity of the host population and the adaptation of methods of diffusion remained important aspects. It was not possible to argue only in terms of the quantity or quality of the population or in terms of its decrease, increase or even "explosion". The Government still had the opportunity to analyse the situation and reflect upon the phenomena of quantity, density, distribution, quality, productivity and survival of the national population. The Minister pointed out that the Government was engaged in a comprehensive developmental strategy which included restructuring local organizations from the level of village cells to regions, a production campaign which emphasized food-stuffs, the establishment and dissemination of basic education and basic preventive health services; and a campaign against unemployment and underemployment. It was in this context that the Government was examining the most appropriate population policy. However, it was better that the many relevant factors be fully explored, particularly with respect to the introduction of family planning programmes, rather than hasty decisions be taken which would later be regretted. In this respect, the result of the population census and other research being undertaken would be of the greatest value. 11/

Information on the general demographic situation and trends

During the period in which the development plan for 1974-1977 was being prepared the Ramanantsoa Government recognized as a severe constraint the scarcity of reliable demographic information. In its reply to the Second United Nations Population Inquiry in January 1973 it stated that this insufficiency had resulted from budgetary constraints, insufficient awareness by the population of the need for registration of vital events, shortage of trained personnel and a lack of organizational unity among the responsible statistical agencies. In a study of the level of mortality in 1972, published in 1973, INSRE stated that since available statistics were incomplete, it had used for this purpose models prepared by the Population Division of the Department of Economic and Social Affairs, United Nations Secretariat. The results were stated to have no great precision and could not be compared with those which could be obtained from a comprehensive demographic survey. Moreover, it was stated, planners, economists and community leaders could not wait indefinitely for the results of a demographic survey before taking necessary decisions. Accordingly, the results of the analysis of information on morbidity and mortality would assist them in an effective orientation of their social policies relevant to health and sanitation.

11/ Madagascar-Presse (Antananarive), 14 March 1976, p. A.12. In February 1977 the United Nations Children's Fund reported to the 1977 session of its Programme Committee that a reformed education service had been initiated in January 1976 and a reoriented health service in October 1976 (E/ICEF/P/L.1660).

Because of the insufficiency of demographic information, the development plan for 1974-1977 had included only limited summaries of the situation for 1970, with the data by age and sex stated to have been derived from an ILO study. However, during this period active preparations were made for taking a full population census, with financial assistance from UNFPA. The Government stated in its reply to the Second United Nations Population Inquiry in 1973 that budgetary limitations had previously prevented the taking of such a census. Although the first request for UNFPA assistance had been made in 1972, the Government stated in a request prepared in June 1974 that, because of the need to complete administrative reorganization following the change of Government in May 1972 and also because of the need to reconsider its priorities in the new political and economic circumstances, a delay in proceeding with the census had been necessary. However, in June 1974 the importance of proceeding with a full census was noted, with a suggestion that the census be held in that year. The change in Government in February 1975 and the subsequent period of political consolidation under President Ratsiraka did not prevent the census enumeration programme from being implemented.

After two years of delay and a period of active preparation lasting from August to December 1974, the first comprehensive census of the country was taken during three separate periods in 1975: in January five urban centres with populations of 40,000 or more (excepting Tamatave and Antananarivo); in April all other urban centres with populations of 5,000 and over; and in August the remainder of the population--85 per cent--in rural areas. Post-enumeration surveys of one fiftieth of the population were undertaken in each case. It was reported by visiting ECA specialists in June 1976 that detailed results would be available for analysis in September of that year. However, by the end of the year these were not yet published.

Size and growth of the population

Information available to the Government

The Ramanantsoa Government recognized the pressing need for an improvement in information on population size and rate of increase and was active in preparations for the first comprehensive population census, to be held in 1975. The administrative enumerations, together with the results of the analysis of mortality levels in 1972 were available to it. It appeared to consider that the rate of natural increase was higher than that accepted during the latter part of the Tsiranana Government. Thus its development plan for 1974-1977 stated that by 1960 the rate of natural increase had been 2.5 per cent in both 1960 and 1971 and that by 1974 it had reached a rate of about 2.6 per cent. Since fertility was not declining but mortality was declining constantly, the rate of natural increase could only accelerate. The plan stated that the proportion of the population under 15 years was 55.5 per cent in 1966, 56.3

per cent in 1970. 12/ A total population of 5.7 million in 1962 and 7.065 in 1970 was quoted together with a reference to the distribution of urban, rural and economically active populations. Although references were made to the estimates made by the previous Government for January 1970 with respect to spatial distribution, it appears that that Government had subsequently adjusted the totals, for the 1971 publication which reported the January 1970 total had given a figure of 7.424 million. 13/ In its draft request for UNFPA assistance of June 1974 the Government stated that the population in 1972 was estimated at 7.9 million. It appeared that, in preparing its 1974-1977 plan, the Government had not utilized the available published information, but had used new and different estimates, possibly prepared by the ILO.

The Government's representative at the World Population Conference stated in his speech to the plenary meeting that the total population had reached 8 million in 1973, with an annual rate of natural increase close to 3 per cent. If the trend observed between 1965 and 1972 were to continue the total population would reach 10.5 million in 1980, 12.6 million in 1985 and 14.8 million in 1990. The population aged below 20 years constituted 55 per cent of the total.

During the first year of the Ratsiraka Government the first comprehensive population census was taken, but in the absence of officially published results uncertainty continued. In two separate articles published in April 1976 the total population was stated to be 8 million and 8.5 million. In various general information sources published in 1976 and 1977 an annual rate of natural increase of 3.0 per cent was reported.

Government perception of size and growth in relation to development objectives

During the period of the Tsiranana Government it had been perceived that the long-term advantage of an accelerating rate of natural increase -- the achievement of a total labour force commensurate in size with the substantial and hitherto underutilized natural resource potential of the country -- more than outweighed the admitted short-term disadvantages of the contribution which a rapidly increasing and youthful population was making to such problems as the provision of employment, services and social infrastructure and to pressure upon land resources. Moreover, these contemporary problems were considered to be derived from the over-all societal structure, including an unsatisfactory configuration of the spatial distribution of the population, inherited from the

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12/ The source quoted was the International Labour Office. However, elsewhere in the plan the same percentages were attributed to the population aged under 20 and not under 15 years.

13/ The reply to the Second United Nations Population Inquiry indicated a total of 7.655 million for 1971.

traditional and colonial periods. The economic difficulties experienced during the period had exacerbated these problems and had been identified as being of structural origin. In particular, the structure of external political and economic relations was considered to have determined the type of modernization which had caused many of the problems. Moreover, the political implications of the ethnic heterogeneity of the population had been implicitly acknowledged to be a relevant factor, making undesirable any intervention to modify natural increase of the population. Finally intervention to change individual fertility behaviour was perceived as unfeasible.

The Ramanantsoa Government had assumed power in the context of the political and social impact of a seriously deteriorating economic situation. It considered the development strategy of the previous Government a substantial failure. It acknowledged the seriousness of problems of unemployment and underemployment, inadequate provision of services and social infrastructure and difficulties in food production for consumption outside the subsistence sector. Under the circumstances it acknowledged the implications of a presumed continued acceleration in the rate of natural increase. Thus in 1973 it was reported that the authorities stressed the fact that population growth and unequal distribution of wealth were the two main social problems within the over-all economic malaise. The Government's reply to the Second United Nations Population Inquiry transmitted in January 1973 stated that if rates of natural increase continued to rise, intervention would be necessary to modify fertility. The development plan for 1974-1977 noted that the youthful character of the population (56 per cent under the age of 20 in 1970) had caused considerable expenditure with respect to the provision of education, health, housing and above all of food supplies, expenditure which had diverted resources from productive activities. In a request for a comprehensive programme of assistance from UNFPA which it transmitted in draft in July 1974 the Government reaffirmed its awareness of the implications of the country's rapidly increasing population for adequate provision of employment, education, health, housing and food.

However, the Ramanantsoa Government also made clear in its development plan for 1974-1977 that it perceived the underlying cause of these problems to be the nature of the country's economic and social structure. Although the modern sector, particularly secondary industry, and to a less extent the tertiary sector had experienced substantial growth during the period 1960-1972, the benefits had accumulated to a foreign minority. Because of the failure to plan for a multiple impact of the modern sector's growth throughout the economy, few additional jobs had been created (only 6,000 during the period in question, at an average individual cost of 2.1 million Malagasy francs) and creation of jobs had not kept pace with the natural increase in the labour force. Little generation of production in the primary sector for internal consumption had been achieved, and the economy remained open to imported inflation. Consequently there had been no improvement in the productivity of the primary sector, and the level of living and purchasing power of the rural population had deteriorated.

In his speech to the United Nations World Population Conference in August 1974, the Government's representative stated that the prospect of an increase in total size of population to 10.5 million in 1980 and to 14.8 million in 1990 would not be disturbing, if all the measures which it had proposed to deal with the situation -- which did not include direct intervention to modify trends in natural increase -- were successfully implemented. In speaking of the need to plan demographic as well as economic and social development -- explicitly excluding from such planning any intervention to change rates of natural increase -- the representative noted that many countries in Africa, and some in Latin America, were still underpopulated but had very great potential in natural resources. Accordingly, there was still ample time in which to achieve harmony between socio-economic development and population growth. The youthful character of the population was stated to be a valuable resource, and a positive view was held of the existing relationships between demographic and economic growth, in view of the need for renewal of societal structures, a process to which youth could contribute substantially.

Finally, a factor of very considerable relevance for the Ramanantsoa Government was the constant tension between coastal and Merina populations, exploited by various of the political groupings throughout the period of political instability between December 1974 and February 1975, in the replacement of the Ramanantsoa by the Ratsiraka Government. In these circumstances any intervention in rates of natural increase, which were already known to be regionally differentiated, was probably considered to be an extremely delicate matter.

The economic situation facing the Ratsiraka Government was more serious than that experienced by the previous Government. Economic stagnation, including steadily deteriorating levels of food supply, inflation, the impact of world financial crises and the rising costs of oil imports, in addition to dislocations attending changes in the political strategy of the Government, all contributed to the seriousness of the situation. In these circumstances the Government accepted the fact that the presumed continually rising rate of natural increase might constitute a substantial short-term disadvantage. In its reply to the Third United Nations Population Inquiry in April 1976 it noted that the rate of natural increase constrained development because it contributed to unemployment problems, constituted an obstacle to the achievement of a desirable distribution of national income and exacerbated problems of provision of adequate social infrastructure, notably health and education services and housing.

As was the case with the Ramanantsoa Government, the Government of President Ratsiraka identified the societal structure and the nature of the relationships between the modern sector of the economy and the world economy as the underlying causes of the country's contemporary economic problems but in its analysis of the situation it gave them a much greater emphasis. It recognized in particular the

the very substantial potential of the country's under-used resources and the deficiency of labour in certain areas in which agricultural expansion was desired. For the Tsiranana Government these factors had been instrumental in its adoption of the point of view that an accelerating rate of natural increase and resultant larger population size were advantageous in the long term. Explicitly, in its reply to the Third United Nations Population Inquiry in April 1976, it noted that rates of natural increase contributed to development in that they permitted the utilization of natural resources and adequate food production, provided the labour force necessary for economic expansion, permitted the achievement of desirable levels of population replacement and contributed to the support of national cultural identity.

Notwithstanding its identification of societal structure as the underlying cause of these problems and its acknowledgement that a larger future population would be beneficial to the country's development in the long term, the Ratsiraka Government, in its reply to the Third United Nations Population Inquiry, indicated that in balancing short-term disadvantages with long-term advantages and in the context of the contemporary politico-economic situation, the rate of natural increase could be characterized as unsatisfactory because too high. This represented a more explicit position than that indicated by the Ramanantsoa Government in its reply to the Second United Nations Population Inquiry in 1973, in which it had indicated only that if rates of natural increase were to continue at their current trend, intervention to change them would be appropriate.

Policy with regard to size and growth

The policies of the Ramanantsoa and Ratsiraka Governments in respect to rate of natural increase and population size and structure included a primary emphasis upon achieving a major structural change in the economy and society of the country. However, certain short-term responsive actions were taken. At the same time both Governments recognized the desirability of giving serious consideration to undertaking direct intervention in demographic processes. However, such intervention was considered to be a delicate matter, involving complex factors of which detailed study would be necessary before any programme designed to modify the contribution made by fertility to natural increase could be adopted. In its reply to the Second United Nations Population Inquiry in January 1973 the Government stated that the primary development objectives were rural development, the improvement of basic living standards and the provision of employment.

The development plan for 1974-1977 adopted by the Ramanantsoa Government indicated that a radical modification of development policy was indispensable if an adequate restructuring of the economy were to be achieved. The basis of future development would consist of agriculture, but its primary generator would be heavy industry. To ensure maximum multiple impact within a predominantly self-sufficient economy, careful integration of the two would be necessary. It was recognized,

however, that these were long-term objectives. During the intervening period a moderate rate of economic growth was called for, averaging, 3.4 per cent per year. Acknowledging the fact that the problem of employment would be resolved only in the long term and by substantial transfer of labour from the primary to the secondary and tertiary sectors, shorter-term solutions were proposed. These involved careful consideration of the employment propensities of the technology associated with each part of the plan, nationalization of sectors hitherto controlled by foreigners, labour-intensive public works for the absorption of those not provided with permanent jobs, decongestion of the high-density areas by means of controlled migration and intensification of local production by means of the fokonolona programme. The longer-term objectives would be dependent upon not only appropriate investment policy but also relevand education and training.

In his speech at the World Population Conference in August 1974 the Government's representative stated that in considering the relationship between population and development, it was important that the socio-political context should not be forgotten. The rural population, which constituted 80 per cent of the national total, would have to take into their own hands the problem of economic growth. However, just as it was important to plan economic and social development, it was also important to plan demographic growth, for it was not possible to approve of anarchy with respect to human reproduction in the light of the need to plan the satisfaction of their needs in goods and services. It was emphasized that planning with respect to population growth did not imply a limitation of births by means of direct measures but rather the elaboration of a policy that would ensure an improvement in the level of living and welfare of the population by means of the implementation of economic and social measures. Accordingly the Government considered that harmonization of economic and social development with trends in population behaviour should be at the centre of its concerns. Moreover, it was pointed out that, in view of the current underpopulation in relation to unused natural resources, there was ample time in which to achieve such harmony. Training and job creation, notably in rural areas, constituted the major element of the Government's population policy. A closely related element was its policy with respect to youth. Finally, the representative stated that it was necessary for the Governments of developing countries to adopt a common front with respect to the crucial problem of population growth, of which the solution could be found only in a radical change of existing international economic relationships.

In September 1976 UNDP reported that the development plan for 1974-1977 had been generally consonant with the Charter of the Malagasy Socialist Revolution adopted in 1975 by the Ratsiraka Government. The long-term solution to the country's problems were then seen to be a complete restructuring of the economy and society and particularly of the relationships between the national and world economies. Emphasis was given to the achievement of self-sufficiency in food, the adoption of appropriate technology in order to fully absorb the adult population in the effective labour force, and the establishment of a completely revised education system designed to ensure that those entering the labour force would have received adequate training. Radical transformation of health services was designed to contribute to greater productivity of the labour force.

The approach of both Governments to the desirability and feasibility of intervention to adjust fertility levels in order to modify rates of natural increase (in circumstances of presumed continued mortality decline) was cautious, although different from the pro-natalist policy of the preceeding Tsiranana Government. In its reply to the Second United Nations Population Inquiry in 1973 the Ramanantsoa Government noted the pro-natalist position of the previous Government and then stated that, because of the current level of natural increase, the result of both a fall in mortality and a rise in fertility, it would be necessary to envisage a pilot study in family planning, restricted to certain areas at the outset. If the rate of natural increase continued to rise, a wider programme of family planning would then be necessary so that a real improvement in the level of family living could be achieved and human dignity supported.

In its draft request for assistance from UNFPA, prepared in June 1974, the Government pointed out that emphasis within its objectives had been placed on social reforms, economic independence, greater participation of nationals in modern activities and the reduction of unemployment and income disparities. However, cognizant of the implications of the rapidly increasing population, it was then initiating steps to deal more effectively with its population problem. The long-term objective of the project for which assistance was requested was to establish a basis for a comprehensive national population programme by increasing knowledge of the demographic situation, ascertaining the role of cultural values and other factors in the formulation of population policies and training personnel to be involved in both formulation and implementation. Research on cultural values was to encompass a broad spectrum of population matters and, it was stated explicitly, not to be confined to an examination of fertility behaviour, although this would receive attention. A further indication of the Government's perception of the need for a broadly based and fully integrated population policy was the fact that its Permanent National Population Committee formed three sub-committees to deal respectively with problems of migration, the improvement of productivity by means of education and job creation and,the provision of mass information and education concerning the human reproductive system. The Government simultaneously sought to increase its knowledge of the situation -- notably by means of the population census. It also modified the restrictive policy of the former Government with respect to the activities of family planning organizations within the country, giving them considerable indirect support through the newly established Population Directorate of the Ministry of Public Health and Social Affairs. It did not, however, adopt a policy designed to reduce the rate of natural increase.

The Ratsiraka Government continued the cautious approach of its predecessor. In its reply to the Third United Nations Population Inquiry in April 1976 it stated that it considered that substantial adjustment of economic and social factors with minor adjustment of demographic facts was the most appropriate means of resolving the problems to which rates of natural increase had contributed. It indicated that its policy with respect to the adjustment of economic and social factors comprised the popular control of development, implemented in 1974,

and the strategy of democratic socialism, implemented in 1975. Rigorous and dynamic planning, the reorganization and technical training of all economic units and agrarian reform were to be the means of achieving the goals of this policy. Adjustment of demographic factors would involve intervention in morbidity and mortality and the internal spatial distribution of the population but not in fertility or international migration.

In a statement made in March 1977 on the occasion of a visit by the Executive-Secretary of UNFPA to Antananarivo, the Minister of Population and Social Affairs again indicated that the Government was following a cautious approach with respect to its policy concerning natural increase, population size and structure. He stated that the Government had often been accused of uncertainty and ambiguity with respect to its population policy. However, the matter required careful consideration, and in terms of its quantitative as well as qualitative aspects. Other relevant factors were spatial distribution, mortality and productivity of the population and fertility. The Minister pointed out that the Government was then engaged in a total restructuring of the economic system, in a battle for production in which emphasis was given to food production, a reform of education and health services, a campaign against unemployment and the achievement of popular involvement in the development process. With respect to family planning, the Minister stated that it could not be passed by in silence. However, a similarly cautious approach was necessary, with prior attention to many relevant aspects of health and welfare.

Thus the position of the Government may be summarized as one of considering that no direct intervention to modify current rates of natural increase was desirable and given the simultaneous emphasis on the improvement of health and basic living standards, those rates might be expected to continue to accelerate.

Morbidity and mortality

Information available to the Government

The Ramanantsoa Government noted in 1973 that information on morbidity and mortality was inadequate for the purpose of health planning. Nevertheless, on the basis of incomplete vital statistics and reports of the Ministry of Social Affairs, an attempt had been made to determine the current levels of mortality. The figures suggested considerable improvement in the situation since the mid 1960s. Crude death rates for the country as a whole were estimated to be 18.3 per thousand population in 1972 (compared to between 22 and 28 per thousand in 1966). The average life expectancy was estimated to be 46.7 years for males and 50.0 for females (compared to 37.5 and 38.3 in 1966). A survey of three communes in the Antsirabe prefecture of Tananarive Province in 1971 had indicated an average life expectancy of 57.8 for men and 56.3 for females.

Other recent surveys supported the estimates for 1972. The rates of infant mortality were considered to be much higher than that of 53.4 per thousand live births indicated by the incomplete vital registration information but lower than the rates then estimated on the basis of life tables, which were 176 for males and 147 for females.

However, the development plan for the period 1974-1977 noted a crude death rate of 20 per thousand population, due predominantly to high levels of infant mortality. The average life expectancy was stated to be between 38 and 40 years, that is, the level indicated by the 1966 demographic survey and not the more recent estimates of INSRE. An infant mortality rate of 147 per thousand live births was reported, and for the population aged 1 to 5 a rate of 297 per thousand population. However, it was stated that the level of mortality was constantly decreasing as a result of the progress made in health services. 14/

In its draft submission for UNFPA assistance prepared in June 1974 the Government stated that a mortality survey would be associated with the comprehensive population census then under preparation. In September 1976 UNDP reported that only 1.5 per cent of the houses in the country had wells, and only 6 per cent had latrines.

Government perception of levels of morbidity and mortality

It may be presumed that levels of morbidity and mortality were perceived by the Ramanantsoa and the Ratsiraka Governments to be unacceptable both from the point of view of individual health and welfare and from that of their impact upon productivity. In April 1976 the latter Government, in its reply to the Third United Nations Population Inquiry, stated that rates were unacceptable. It considered that it was possible to achieve by 1985 a level of life expectancy for both sexes of between 50 and 54 years. In September 1976 UNDP reported that the chief health problem was the high incidence of communicable diseases, which affected all aspects of human life and greatly impeded economic and social development. Prevalent throughout rural areas, owing to unfavourable environmental conditions, such diseases had repercussions on employment leading to a reduction in family income, thus aggravating poverty and reducing productivity. Governmental resources were stated to be quite inadequate to deal with them effectively. The development plan for 1974-1977 noted that, in relation to a national average of 10,237 persons per doctor, the rate in Tananarive Province was 5,116, with 22,970 in Fianarantsoa Province and 16,397 in Tamatave Province. In the remaining provinces the rate was close to the national average.

14/ The rate of 297 per thousand population is, however, an unusually high one, and there exists the possibility of an error in computation or reproduction.

Policy with regard to morbidity and mortality

The emphasis given to reducing morbidity and mortality which had characterized the Tsiranana Government was maintained during the period from 1972 onwards, but greater priority was attached to implementation and considerable improvements were made in the choice of measures to be undertaken. In its reply to the Second United Nations Population Inquiry in 1973 the Ramanantsoa Government stated that among its priority objectives were the improvement of nutrition, community hygiene and housing. The development plan for the period 1974-1977 proposed two essential points of health policy: the creation of basic health centres throughout rural areas of the country; and integration and co-ordination of all activities related to health (education, curative and preventive services). At that time there was one bed for 449 persons and one doctor for 14,749 inhabitants, with a distribution marked by substantial urban and regional disequilibrium. Health education, with respect to children, in particular, was given emphasis. In its draft request for UNFPA assistance prepared in June 1974 the Government indicated that research into the means of reducing mortality would form part of a comprehensive population programme. It was reported in September 1974 that a preliminary party of a Chinese medical team had arrived to begin work in the country. 15/

In its reply to the Third United Nations Population Inquiry in April 1976 the Ratsiraka Government stated that its policy with respect to infant mortality was to improve and extend the maternal and child health services begun in 1964, and to integrate them within all related health activities. The UNDP reported in September 1976 that one of the primary objectives of the Government's policy to meet essential needs -- enunciated in the Charter of the Malagasy Socialist Revolution -- was to make health services available to every inhabitant. The policy consisted in strengthening services, both preventive and curative, through a decentralized system capable of providing health care services to the majority of the population. The integration of services and adoption of simplified technology would make it possible for the population in the most remote rural areas to be reached. In each of the fokonolona a health officer would be responsible for emergency care, environmental health and health education.

In February 1977 the United Nations Children's Fund reported that as part of a reorientation of health services the Government had in October 1976 initiated a programme of primary or basic health services. During the period 1977-1979 it was planned that 1,500 primary health care units would open, and emphasis was being given, with the assistance of UNICEF and the World Health Organization (WHO), to the training of adequate numbers of personnel to staff them.

15/ Madagascar-Matin (Antananarive) 20 September 1974, pp. 1, 3.

Fertility

Information available to the Government

During the period 1972-1976 there was no improvement in information on fertility behaviour. The statistical services undertook no analysis of available information analogous to that undertaken for mortality in 1973. However, in June 1974 the Government noted in a draft request for UNFPA assistance that it intended to undertake fertility surveys in support of analysis of the information to be derived from the forthcoming comprehensive population census. In its reply to the Second United Nations Population Inquiry in 1973 the Ramanantsoa Government reported a crude birth rate for 1971 of 36.5 per thousand population, possibly based on vital statistics reports. In its development plan for 1974-1977 the Ramananatsoa Government noted a crude birth rate of 45 per thousand of the population and described fertility as not declining. In April 1974 the International Planned Parenthood Federation reported that sterility and sub-fertility due to venereal diseases and abortions were both serious problems. In a speech to the World Population Conference in August 1974 the Government's representative stated that the general fertility rate was 200 per thousand, considered to be among the highest in the world. The average number of children ever born to women was 6.63.

In an examination of the political and economic situation published in April 1976 it was noted that the national bourgoisie, which might be considered to be the only class likely to be affected by a change in fertility behaviour towards a lower desired family size, included scarcely 5 per cent of the population.

Government perception of levels and trends of fertility

In its reply to the Third United Nations Population Inquiry transmitted in April 1976 the Ratsiraka Government stated that the current level of fertility contributed favourably to family well-being in that it assured the achievement of the desired family size, support for parents in their old age, the continuation of the family unit, adequate family labour and other family needs. However, intervals between births were stated to be too short, abortions too frequent, child well-being unsatisfactory, the number of undesired children too high, and the overall situation with respect to maternal and child health and family welfare unsatisfactory. Moreover, the current level of fertility was too high with regard to its contribution to the rate of natural increase, itself considered too high. It was considered that women married on the average too young and this situation was viewed as to a substantial degree responsible for the unsatisfactory level of fertility.

Policy with regard to fertility

The policies of both the Ramanantsoa and the Ratsiraka Governments with regard to fertility were identical. With respect to qualitative aspects associated with maternal and child health care and family welfare,

the policy has been one of the activities of groups engaged in the provision of family planning information, guidance and materials within the broader context of a substantial expansion and restructuring of health facilities. In contrast, with respect to a more comprehensive national programme of family planning and particularly with respect to its quantitative aspects -- that is, the contribution made by the aggregate fertility level to national rates of natural increase the policy has been one of very considerable caution, even though both fertility and natural increase were perceived to be excessive by the Ratsiraka Government.

The Association of Family Welfare and Maternal Health (Fianakaviana Sambatra) reported that during 1973 a much more favourable attitude to its activities was shown by both Government and the public. However, the services it provided, although expanding, were still limited and were not given to mothers with fewer than four children, except upon presentation of a medical certificate. The anti-contraceptive law enacted during the period of French administration was still in force. However, the Permanent National Population Committee was concerned with achieving an improvement in the provision of information and education with respect to the human reproductive system and was working for the repeal of the anti-contraceptive law. 16/

In a speech to the World Population Conference in August 1974 the Government's representative stated that although the object of marriage in the country was procreation, the Permanent National Population Committee considered it appropriate for the population to be informed and educated with regard to human reproduction. It was considered important to demystify this matter. The Government considered it possible for all couples to extend their knowledge of human reproduction, whatever their level of education or their cultural or moral viewpoint. The question of spacing or regulating births was a matter for the couple to decide, not the Government. Moreover, the representative explicitly stated that it was not the Government's intention to adopt any policy designed to change family size. Nevertheless, it considered itself obligated to provide instruction in human reproduction, including problems of sterility, as a means of contributing to family health and welfare.

16/ In 1976 the UNFPA reported that the French anti-contraceptive law of 31 July 1920 had been adopted in Madagascar on 22 July 1933 and was included in the Malagasy Penal Code, as published in the Journal officiel, No. 240, of 7 September 1962. It was still in force in 1976. By its terms, the import, manufacture, sale, advertisement or transportation of contraceptives was forbidden, although for use as prophylactics against veneral disease they could be advertised and sold. Oral contraceptives were sold by prescription on the grounds of promoting health and combating sterility. Survey of Contraceptive Laws: Country Profiles, Checklists and Summaries (New York, United Nations Fund for Population Activities, 1976), pp. 51-52.

In its reply to the Third United Nations Population Inquiry transmitted in April 1976 the Ratsiraka Government stated that it had formulated a policy with respect to the unsatisfactory aspects of the impact upon family health and welfare of current fertility behaviour. A programme of family education in responsible parenthood had been implemented in 1974 for actual and future parents. It had been integrated into the primary and secondary systems of education and the maternal and child health service. It had no policy designed to resolve the problem of premature marriage for girls. It reaffirmed the emphasis given to reoriented and expanded health and education services. An agency responsible for improving the situation of women had been established in the Ministry of Population and Social Affairs, and the Government had sent a small number of doctors and midwives to France for training in the provision of family planning services.

The Ramanantsoa Government was much more cautious -- as the Ratsiraka Government has been up to the present -- with respect to the adoption of a policy designed to modify fertility levels sufficiently to bring about a change in the contribution which those levels make to the rate of natural increase. In its reply to the Second United Nations Population Inquiry transmitted in January 1973 the Ramanantsoa Government stated that, in view of the current levels of natural increase, it was certainly to be envisaged that a pilot study in family planning might be begun in certain localities. It noted that until that date the policy of the Government had been pro-natalist. However, family planning would be necessary if the rate of natural increase continued to rise. It was stated that the obstacles which the Government would have to overcome in order to adopt and implement a family planning programme were social and cultural, for there existed many taboos, and a high proportion of the adult population was illiterate. However, the Government's development plan for 1974-1977 did not mention this matter.

Concern for obtaining better knowledge of the socio-psychological determinants of fertility behaviour and their possible relevance to any attempt to modify that behaviour was indicated in the Government's draft request for UNFPA assistance prepared in June 1974, in which a comprehensive research programme was proposed in this area. In its reply to the Third United Nations Population Inquiry in April 1976 the Ratsiraka Government stated that it had no policy designed to modify the rate of fertility in order to affect its contribution to natural increase.

In his statement made on the occasion of the visit to Madagascar of the Executive Director of UNFPA the Minister of Population and Social Affairs stated that the issue which concerned him the most was that of family policy, or family planning policy. It was his opinion that before a mature political decision could be taken, it would be necessary to take into account the health of mothers and children, the level of awareness of parents and future parents with respect to reproduction and the concept of the family, the need for constant improvement in the quality of family life and society, the need for a struggle against sterility -- a frequently noted phenomenon -- and the need for permanent and progressive

education of all members of the population with a view to producing responsible citizens. The Government supported initiatives which had as their goal educating couples to be aware of their responsibilities as citizens, parents and educators and the reduction of clandestine abortions. It also encouraged all activities relevant to the health and welfare of the child, the mother and the family. The results of the census then being taken would be very valuable, although other studies and research would also be necessary before a decision could be reached.17/

Immigration

No demographically significant increase in immigration is known to have occurred during the period 1972-1976. In its reply to the Third United Nations Population Inquiry the Government stated that it had insufficient information on this matter but in general considered that the situation was satisfactory. The only recent immigration movement other than that of French and other short-term technical assistance personnel has been from the Comoros. However, after that country's independence in mid 1975 and particularly after the communal disturbances affecting the Comorian immigrant community in Majunga, no further immigration from that country is likely to occur.

Emigration

No information is available concerning emigration, but it is unlikely that any demographically significant movement occurred during the period under discussion. After the assumption of power by the Ramanantsoa Government in May 1972 and the changes in political and economic relations with France which followed, part of the substantial French community emigrated. By the end of 1974 it was reported that 15,000 had left the country. After the disturbance which affected the Comorian community in Majunga, the Comorian Government decided to repatriate the remaining 15,000 members of that community. 18/ During February 1977 about 16,000 Comorians were resettled in their country of origin with the assistance of the International Committee of the Red Cross.

In its reply to the Third United Nations Population Inquiry transmitted in April 1976, the Ratsiraka Government stated that it considered that the loss of competent personnel resulted in a reduction in the innovative capacity of the country, thereby constraining development. However, it had insufficient information concerning the actual levels involved. It may be presumed that this was a reference to movements of students who did not return immediately after completion of their programmes abroad.

17/ Madagascar-Presse, 14 March 1977, p. A12.

18/ Quarterly Economic Review, No. 3 (1974), p. 17. Le Monde, 18 February 1977, p. 5. Keesing's Contemporary Archives, 18 February 1977, p. 28,204; 15 July 1977, p. 28,458.

Spatial distribution

Information available to the Government

Very little additional information became available during the period in question with respect to the spatial distribution of the population. Presumably analysis of the comprehensive census held during 1975 will provide substantial new information. In April 1974 the population of the metropolitan centre, Antananarivo, was reported to have reached about 450,000. In his speech to the World Population Conference in August 1974 the Government's representative stated that 80 per cent of the population was rural. The development plan for 1974-1977 and the report prepared in April 1975, during the early months of the Ratsiraka Government, for the United Nations Conference on Human Settlements reported that the proportion of the population classified as urban had increased from 13 per cent in 1962 to 17 per cent in 1970, at an average annual rate of 6 per cent. The development plan also noted that 80 per cent of the active population was engaged in agriculture. However, a number of other sources, including the Ramanantsoa Government's draft request for UNFPA assistance prepared in June 1974 and the UNDP report on assistance requested for 1977-1981 prepared in September 1976, stated that the urban population constituted 15 per cent of the total.

The development plan for 1974-1977 noted that the average density of population estimated for January 1970 for Tananarive Province was 31 inhabitants per square kilometre. Moderate densities were characteristic of Fianarantsoa, Tamatave and Diego-Suarez Provinces with 18, 16 and 14 inhabitants per square kilometre, respectively, and lower densities in Tuléar and Majunga Provinces with only 7 and 6 inhabitants per square kilometre, respectively.

Government perception of spatial distribution

The Ramanantsoa Government is not known to have indicated its perception of the acceptability of metropolitan population trends. In its reply to the Third United Nations Population Inquiry in April 1976 the Ratsiraka Government indicated that the rate of population growth in the metropolitan region as a whole was perceived to be too high. The report prepared in April 1975 during the early months of the Ratsiraka Government for the United Nations Conference on Human Settlements had stated that the country had not escaped the phenomena common to most developing countries, phenomena which included the irreversible development of agglomerations due to the processes of expanding urbanization.

The only explicit reference to perception of the demographic behaviour of regional and subregional urban centres (centres of the second and third order within the national urban system) was contained in the reply of the Ratsiraka Government to the Third United Nations Population Inquiry, which indicated that their rate of population growth was perceived to be too high.

The disequilibrium between regions with respect to population densities, as well as most aspects of development was a major concern of both the Ramanantsoa and the Ratsiraka Governments. In particular the southern region, generally equivalent to Tuléar Province, was considered to be the least developed.

The over-all proportion of the population resident in urban centres was not perceived to be excessive. In fact the Ramanantsoa Government, in its development plan for the period 1974-1977, described the proportion as rather low. However, the report prepared for the United Nations Conference on Human Settlements referred to the unfavourable aspects of urbanization as a whole, although it might have referred specifically to expansion of the metropolitan centre.

Both Governments considered that the distribution of the rural population within the national territory was unsatisfactory. In his speech to the World Population Conference in August 1974 the Government's representative stated that the pattern of distribution was entirely unacceptable. The development plan for the period 1974-1977 noted the very unequal distribution and the high level of concentration in certain areas. The reply made by the Ratsiraka Government to the Third United Nations Population Inquiry stated that the distribution of population in general was considered appropriate, although in need of minor adjustment with regard to protection of the environment. However, it was unsatisfactory and in need of major modification with regard to the utilization of natural resources, the achievement of full employment and the welfare of the population. The report of UNDP prepared in September 1976 noted that the scattered pattern of rural settlement and the inaccessible character of considerable parts of the rural population were serious impediments to developmental progress.

In its reply to the Third United Nations Population Inquiry the Government stated that migration from one rural area to another -- consisting largely of movements from the higher-density plateau areas and the underdeveloped southern region to the low-density western regions -- was in general perceived to be desirable, although uncontrolled. The rate of growth of the rural population was perceived to be favourable to development.

The development plan for the period 1974-1977 noted that movement from rural to urban centres was only just beginning. Such movement was characterized by an initial migration to small local urban centres. It was not yet large enough for the underemployment of the rural population to be perceptible -- that is, as a result of a mass out-flow from rural areas. The Ratsiraka Government's report for the United Nations Conference on Human Settlements implied that rural to urban movements were considered undesirable. The reply to the United Nations Third Population Inquiry also implied that they were undesirable, in view of the statement that the Government had adopted a policy designed to reduce them.

Policy with regard to spatial distribution

With respect to the metropolitan region, the Ramanantsoa Government made no explicit statement of its policy, although the report prepared for the United Nations Conference on Human Settlements in April 1975, during the early period of the Ratsiraka Government, is likely to represent its views. The report indicated a largely responsive policy, designed to improve physical planning within the metropolitan centre. In its reply to the Third United Nations Population Inquiry in April 1976 the Ratsiraka Government stated that adjustment of the distribution of both economic and social activities and of the population itself was considered appropriate if problems associated with the spatial distribution of population were to be resolved. With respect to the metropolitan region the Government was stated to have had a formulated policy, effective since 1975, which consisted largely of decentralization and deconcentration to the urban centres of non-metropolitan regions.

The policies of both the Ramanantsoa and the Ratsiraka Governments with respect to urban centres of the second- and third-order levels (that is, regional and subregional centres) may be best understood in the context of the Government's objectives of reducing the differentiation between urban and rural areas, on the one hand, and between major regions of the country, on the other, and of securing a much more effective economic integration of what were hitherto described as islands of economic activity in the modern sector. The long-term objective of the development plan for 1974-1977 was to prepare for the establishment of heavy industry as the generating factor in development and of agriculture as the base, through an intermediate stage during which light industry, closely related with agriculture, would be stimulated. This arrangement would ensure high levels of self-sufficiency at all levels and provide the necessary economic and social infrastructure to the rural population. Accordingly considerable emphasis was to be given to regional economic and social planning, the provision of socio-economic infrastructure, appropriate physical planning on a regional basis and the establishment of close linkages between regional, subregional and smaller urban centres.

The report prepared for the United Nations Conference on Human Settlements gave greatest attention to the need for physical planning within urban centres. In its reply to the Third United Nations Population Inquiry in April 1976 the Ratsiraka Government indicated that since 1975 its policy with respect to the urban centres in non-metropolitan regions consisted of decentralization and deconcentration from the metropolitan centre. The UNDP reported in September 1976 that the major priorities in development assistance included the improvement of inter-regional transportation, the establishment of industrial zones in regional centres, a reduction in regional disequilibria, and the creation of basic education and health infrastructure by means of a hierarchical system extending from urban areas to all rural areas. The speech made by the Minister of Population and Social Affairs on the occasion of a visit by the Executive-Secretary of UNFPA in March 1977 indicated that the struggle to reduce differences between rural and urban areas and among regions remained at the forefront of the Government's strategy. 19/

19/ Madagascar-Presse, 13 March 1977, p. A12.

The development strategies of both the Ramanantsoa and Ratsiraka Governments gave first priority to an improvement in the basic living standards of the mass of the population, which consisted to an overwhelming extent of those resident in rural areas. This goal was not intended to reduce rural to urban movements, which were perceived to be relatively limited in size and desirable to a considerable extent, but was rather a developmental objective in its own right. This emphasis was noted by the Ramanantsoa Government in its reply to the Second United Nations Population Inquiry in January 1973, in its development plan for the period 1974-1977, in the report prepared for the United Nations Conference on Human Settlements in April 1975, in the Charter of the Malagasy Socialist Revolution in December 1975 and in the reply to the Third United Nations Population Inquiry in April 1976. Measures implemented with this objective in mind included the stimulus given to the fokonolona as basic units of administration and popular mobilization for development, to which were added a structure of district (firaisampokolona) and regional organizations, programmes of agricultural co-operatives, sufficiency in food production and the development of basic education and health services. In his speech to the World Population Conference in August 1974, the Government's representative stated that since the great majority of the population was resident in rural areas, the Government's policy of attempting to achieve economic development objectives by means of the mobilization of the entire population, in particular through the fokonolona programme, in fact constituted a policy with respect to the spatial distribution of the population.

However, in addition to the general over-all strategy of rural development, both Governments developed policies designed to control migration within rural areas in order to secure the most effective co-ordination between existing movements and the areas chosen for development investment, particularly infrastructural and productive investment. A policy of controlling the movement from rural to urban areas in such a way as to secure a greater concentration in smaller urban centres was also formulated. The Decree on Migration issued on 22 March 1974 indicated zones from which migration was desired and those into which movement was to be attracted. Assistance was to be provided to migrants from over-populated areas, from agricultural training schools and from urban areas. 20/

In his speech to the World Population Conference in August 1974 the Government's representative stated that the most important element of its population policy consisted of attempting to improve spatial distribution. It was for this reason that a policy with respect to internal migration had been adopted.

In its reply to the Third United Nations Population Inquiry the Ratsiraka Government stated that its policy with respect to rural areas included persuading prospective migrants from high-density areas to move to rural development zones into which movement hitherto had been too slow. This programme was intended also to slow movement from rural to urban areas.

20/ Lumière (Antananarivo), 31 March 1974, pp. 1, 4, 8.

CONCLUSION

The national experience of successive Governments of Madagascar in the formulation and implementation of their population policy during the period 1960-1976 is of considerable interest. At the beginning of the period the country had just emerged from colonial administration. Its economy was characterized by dualism between a small modern sector largely controlled by foreign interests and a traditional sector which included the majority of the population. Development planning has been concerned primarily with the provision of economic and social infrastructure in support of the modern sector. Demographic conditions were characterized by high levels of morbidity and mortality which placed severe constraints upon fertility behaviour -- still very largely responsive to traditional values -- and by rural to rural movement of the population rather than rural to urban movement. This was only beginning to assume national significance.

The Tsiranana Government, by means of its decision-making institutions at the highest level and its technical planning agency, attempted to diagnose the implications of its over-all development objectives on the demographic situation and trends. Although deficiencies in information hindered the preparation of some of the detailed aspects of the development plan, they were not so great as to obscure the nature or general implications of demographic conditions. Consequently, the Government, and those of Presidents Ramanantsoa and Ratsiraka which succeeded it, was able to formulate a comprehensive population policy, well integrated within its over-all development strategy.

Throughout the period the principal concern with respect to rates of natural increase and total size and structure of the population was with the balance between the recognized long-term advantages of a youthful and rapidly growing population and the acknowledged short-term disadvantages which such a population represented. The Tsiranana Government, during the initial period of formulating its development strategy, emphasized the former while accepting the inevitability of the latter, and adopted a number of measures designed to respond to their more serious manifestations. Because it had proved difficult to protect the economy against the adverse effects of global trends, so that the modern sector suffered increasingly from imported inflation and deteriorating terms of trade and transfer abroad of earnings, the short-term disadvantages of continuing relatively high rates of natural increase came to be increasingly a matter of concern. Accordingly the Ramanantsoa and Ratsiraka Governments, although not losing sight of what were still considered the long-term advantages of the current population growth, came to be more closely concerned than the previous Government with problems such as unemployment and pressure on services, infrastructure and agricultural land. At the same time they identified more explicitly the structural rather than the demographic cause of such problems. Thus the nature of the modern sector, its relationships outside the country and its consequent inability to generate self-sustained national economic expansion were identified as the underlying causes of problems to the

seriousness of which demographic trends were contributing. Accordingly the policy adopted was one of technological and, in particular, of organizational transformation and structural change rather than intervention to modify trends in natural increase.

Indeed, all three Governments have maintained a consistent policy of attempting to improve health and reduce morbidity and mortality, the achievement of which, under conditions of unchanged fertility, would accelerate natural increase. The Ramanantsoa and Ratsiraka Governments have given much greater emphasis to the rapid expansion of basic health services in all rural areas, using for that purpose innovative methods less likely to be constrained in their implementation by capital costs. Closely associated with their policy with respect to morbidity and mortality has been their policy with respect to fertility, for each Government has emphasized qualitative improvement rather than quantitative change. The Ramanantsoa and Ratsiraka Governments have given substantially increased emphasis to maternal and child health services, within which the provision of guidance and information on modern methods of family planning has been expected to play an increasingly important role.

All three Governments have followed a consistent policy of attempting to induce increased movement from the relatively high-density to the relatively low-density regions of the country. At the same time, technological and organizational devices such as the fokonolona, designed to affect rural populations in situ, have been emphasized, particularly by the Ramanantsoa and Ratsiraka Governments. An over-all emphasis on rural development, rather than separate measures, has been perceived as the means most likely to effectively prevent an excessive rural to urban migration, moderate rates of which have been considered desirable. International migration has been relatively unimportant during the period in question.

Each of the three Governments succeeded, in spite of insufficient information, in adequately diagnosing the nature of the relationship between demographic and other processes within the country and in formulating policies appropriate to that relationship. Problems have arisen principally in implementation, rather than in formulation, and they have been one of the difficulties faced by successive Governments in their attempt to achieve an independent economic and social development.

Madagascar: Selected demographic indicators, 1950-2000

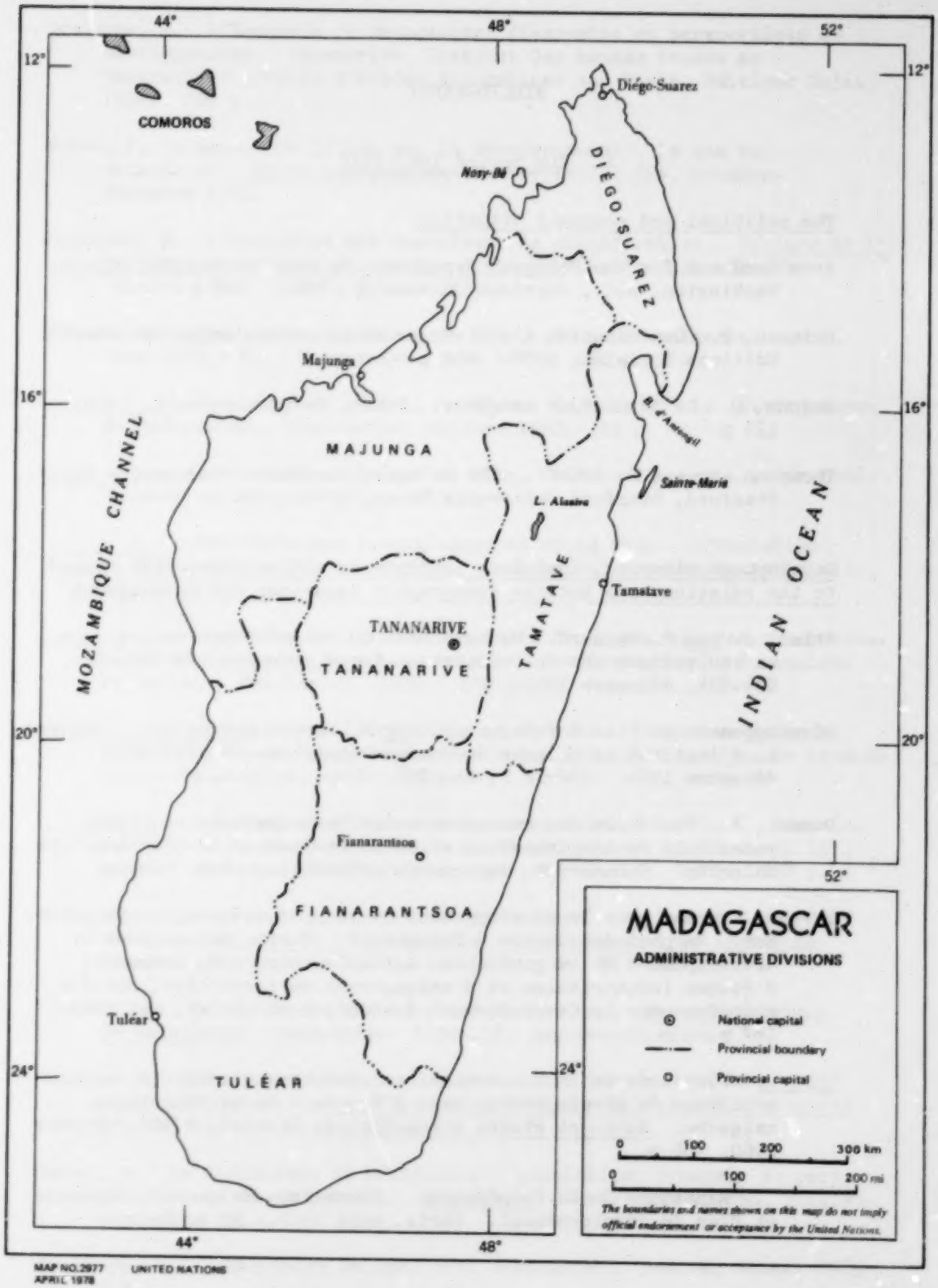
Medium variant	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Population, total (in 1000)....	4330	4803	5370	6079	6932	8020	9329	10909	12800	15079	17782
-- , males (--).....	2133	2363	2641	2977	3409	3950	4601	5388	6331	7468	8818
-- , females(--).....	2197	2440	2729	3102	3523	4071	4728	5521	6469	7611	8964
Pop. ages 0-4 to total (0/0).	18.4	18.3	18.3	18.3	18.1	19.2	19.2	19.2	19.0	18.9	18.6
-- 5-14 --	25.9	26.2	26.3	27.0	26.3	26.0	26.9	27.8	28.0	28.0	28.1
-- 15-64 --	52.5	52.6	52.8	51.5	52.9	52.1	51.2	50.3	50.2	50.3	50.5
-- 65+ --	3.1	2.9	2.6	3.2	2.7	2.6	2.7	2.7	2.7	2.8	2.8
-- under 20 --	54.6	54.8	54.9	54.4	54.8	55.4	56.1	56.9	57.6	57.5	57.4
Women ages 15-49 to females(0/0)	45.5	45.8	45.9	45.0	45.9	45.2	44.5	43.7	43.8	43.9	44.1
Dependency ratios (per 1000) ..	905.0	899.9	893.5	942.3	889.9	920.4	954.4	988.9	990.6	989.4	980.9
Child-woman ratios (per 1000) ..	798.8	788.7	782.7	795.9	775.2	837.5	853.0	867.3	860.7	855.4	837.7
Sex ratios (per 100 females) ..	97.1	96.8	96.8	96.0	96.8	97.0	97.3	97.6	97.9	98.1	98.4
Median ages (years)	17.8	17.7	17.6	17.6	17.7	17.3	16.9	16.5	16.4	16.4	16.5
Proportion of urban (0/0)	7.8	9.6	11.6	13.5	15.4	17.8	20.4	23.1	25.9	28.8	31.8
Population density (per sq.km.).	7	8	9	10	12	14	16	19	22	26	30
	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	
Rates of growth (0/0).....	2.07	2.23	2.48	2.63	2.92	3.02	3.13	3.20	3.28	3.30	
Natural increase rates (0/00)...	20.7	22.3	24.1	26.9	29.1	30.2	31.2	31.9	32.7	32.9	
Crude birth rates (--)...	50.0	50.2	49.4	50.0	50.2	49.3	48.3	47.1	46.2	44.8	
Crude death rates (--)...	29.3	27.9	25.3	23.1	21.1	19.1	17.1	15.2	13.5	11.9	
Gross reproduction rates	--	--	--	--	3.30	3.30	3.30	3.25	3.16	3.01	
Net reproduction rates	--	--	--	--	2.18	2.28	2.38	2.44	2.46	2.43	
Total fertility rates (0/00)..	--	--	--	--	6706	6706	6706	6604	6421	6104	
General fertility rates (--)..	215.8	215.6	213.5	215.7	216.8	216.7	216.5	213.1	208.9	201.9	
Life expectancy, males (years)	31.9	34.4	36.9	39.4	41.9	44.4	46.9	49.3	51.8	54.2	
-- , females (--)	35.1	37.6	40.1	42.6	45.1	47.6	50.2	52.7	55.3	57.8	
-- , total (--)	33.5	35.9	38.4	40.9	43.5	46.0	48.5	51.0	53.5	56.0	

High variant	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Population, total (in 1000)....	4330	4803	5370	6079	6932	8020	9346	10961	12952	15413	18427
-- , males (--).....	2133	2363	2641	2977	3409	3950	4609	5415	6408	7637	9145
-- , females(--).....	2197	2440	2729	3102	3523	4071	4736	5546	6544	7776	9283
Pop. ages 0-4 to total (0/0).	18.4	18.3	18.3	18.3	18.1	19.2	19.3	19.3	19.4	19.5	19.4
-- 5-14 --	25.9	26.2	26.3	27.0	26.3	26.0	26.9	27.9	28.0	28.2	28.5
-- 15-64 --	52.5	52.6	52.8	51.5	52.9	52.1	51.1	50.1	49.9	49.6	49.4
-- 65+ --	3.1	2.9	2.6	3.2	2.7	2.6	2.7	2.7	2.7	2.8	2.8
-- under 20 --	54.6	54.8	54.9	54.4	54.8	55.4	56.2	57.0	57.8	58.1	58.3
Women ages 15-49 to females(0/0)	45.5	45.8	45.9	45.0	45.9	45.2	44.4	43.6	43.4	43.3	43.2
Dependency ratios (per 1000) ..	905.0	899.9	893.5	942.3	889.9	920.4	956.4	994.1	1005.0	1016.4	1025.7
Child-woman ratios (per 1000) ..	798.8	788.7	782.7	795.9	775.2	837.5	856.2	873.1	881.7	891.0	892.0
Sex ratios (per 100 females) ..	97.1	96.8	96.8	96.0	96.8	97.0	97.3	97.6	97.9	98.2	98.5
Median ages (years)	17.8	17.7	17.6	17.6	17.7	17.3	16.9	16.5	16.2	16.1	16.0
Proportion of urban (0/0)	7.8	9.6	11.6	13.5	15.4	18.0	21.0	24.3	27.9	31.8	36.0
Population density (per sq. km.)	7	8	9	10	12	14	16	19	22	26	31

	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000
Rates of growth (0/0).....	2.07	2.23	2.48	2.63	2.92	3.06	3.19	3.34	3.48	3.57
Natural increase rates (0/00)...	20.7	22.3	24.1	26.9	29.1	30.5	31.8	33.3	34.7	35.6
Crude birth rates (--)...	50.0	50.2	49.4	50.0	50.2	49.2	48.2	47.6	47.1	46.3
Crude death rates (--)...	29.3	27.9	25.3	23.1	21.1	18.7	16.4	14.3	12.4	10.6
Gross reproduction rates	--	--	--	--	3.30	3.30	3.30	3.30	3.27	3.19
Net reproduction rates	--	--	--	--	2.18	2.30	2.42	2.53	2.62	2.66
Total fertility rates (0/00)..	--	--	--	--	6706	6706	6706	6706	6645	6482
General fertility rates (--)..	215.8	215.6	213.5	215.7	216.8	216.7	216.5	216.4	215.2	212.4
Life expectancy, males (years)	31.9	34.4	36.9	39.4	41.9	44.9	47.8	50.8	53.7	56.6
-- , females (--)	35.1	37.6	40.1	42.6	45.1	48.1	51.2	54.3	57.3	60.3
-- , total (--)	33.5	35.9	38.4	40.9	43.5	46.5	49.5	52.5	55.5	58.5

Low variant	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000
Population, total (in 1000)....	4330	4803	5370	6079	6932	8020	9313	10824	12580	14587	16706
-- , males (--).....	2133	2363	2641	2977	3409	3950	4592	5345	6220	7220	8275
-- , females(--).....	2197	2440	2729	3102	3523	4071	4720	5479	6360	7367	8431
Pop. ages 0-4 to total (0/0).	18.4	18.3	18.3	18.3	18.1	19.2	19.2	18.9	18.5	18.0	16.6
-- 5-14 --	25.9	26.2	26.3	27.0	26.3	26.0	26.9	27.9	27.9	27.7	27.7
-- 15-64 --	52.5	52.6	52.8	51.5	52.9	52.1	51.2	50.6	50.9	51.5	52.8
-- 65+ --	3.1	2.9	2.6	3.2	2.7	2.6	2.7	2.7	2.7	2.8	2.9
-- under 20 --	54.6	54.8	54.9	54.4	54.8	55.4	56.1	56.7	57.0	56.5	55.2
Women ages 15-49 to females(0/0)	45.5	45.8	45.9	45.0	45.9	45.2	44.5	44.0	44.3	44.9	46.1
Dependency ratios (per 1000) ..	905.0	899.9	893.5	942.3	889.9	920.4	952.4	977.8	965.3	941.2	892.9
Child-woman ratios (per 1000) ..	798.8	788.7	782.7	795.9	775.2	837.5	849.9	848.5	825.8	791.9	713.8
Sex ratios (per 100 females) ..	97.1	96.8	96.8	96.0	96.8	97.0	97.3	97.6	97.8	98.0	98.1
Median ages (years)	17.8	17.7	17.6	17.6	17.7	17.3	16.9	16.6	16.7	17.0	17.6
Proportion of urban (0/0)	7.8	9.6	11.6	13.5	15.4	17.5	19.7	21.9	24.0	26.1	27.9
Population density (per sq.km.).	7	8	9	10	12	14	16	18	21	25	28
	1950-1955	1955-1960	1960-1965	1965-1970	1970-1975	1975-1980	1980-1985	1985-1990	1990-1995	1995-2000	
Rates of growth (0/0).....	2.07	2.23	2.48	2.63	2.92	2.99	3.01	3.01	2.96	2.71	
Natural increase rates (0/00)...	20.7	22.3	24.1	26.9	29.1	29.8	30.0	30.0	29.6	27.1	
Crude birth rates (--)...	50.0	50.2	49.4	50.0	50.2	49.3	47.8	46.1	44.1	40.0	
Crude death rates (--)...	29.3	27.9	25.3	23.1	21.1	19.5	17.8	16.1	14.6	12.9	
Gross reproduction rates	--	--	--	--	3.30	3.30	3.24	3.13	2.93	2.59	
Net reproduction rates	--	--	--	--	2.18	2.26	2.29	2.29	2.22	2.02	
Total fertility rates (0/00)..	--	--	--	--	6706	6706	6584	6348	5954	5258	
General fertility rates (--)..	215.8	215.6	213.5	215.7	216.8	216.7	213.4	206.5	195.6	174.0	
Life expectancy, males (years)	31.9	34.4	36.9	39.4	41.9	43.9	45.9	47.8	49.8	51.8	
-- , females (--)	35.1	37.6	40.1	42.6	45.1	47.1	49.2	51.2	53.3	55.3	
-- , total (--)	33.5	35.9	38.4	40.9	43.5	45.5	47.5	49.5	51.5	53.5	

Source: World Population Prospects as Assessed in 1973 (United Nations publication, Sales No. E.76.XIII.4).



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